Lectures
ON SOME
NERVOUS DISORDERS THAT RESULT FROM OVERWORK AND MENTAL ANXIETY.

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LECTURE I.

GENTLEMEN,—I wish to direct your attention to a very numerous and interesting class of cases, in which a great variety of so-called nervous symptoms are traceable to the influence of overwork, anxiety, or mental shock. For the last quarter of a century I have taken an especial interest in cases of this kind, and so long ago as the year 1853, in a course of lectures which I delivered at the Royal College of Physicians, I described their general features, and gave a considerable number of examples illustrative of their etiology, their symptoms, and their successful treatment by a cautious temporary use of opium at bedtime. Up to that time my experience of these cases had been gained chiefly as a dispensary physician and in the out-patient rooms of the hospital. Since then I have met with them in all classes of society, and I know of few forms of disease in which a treatment based upon the recognition of the true nature and origin of the symptoms is, in a large proportion of cases, attended with more entirely satisfactory results. My treatment of these cases is essentially the same now as it was then, but the substitution of chloral for opium as a temporary soporific is a great practical gain. I say emphatically, as a "temporary soporific"; for I shall hereafter show you that I resort to the chloral only to tide over a temporary difficulty. Few drug-evils can be greater than that involved in the habitual employment of soporifics of any kind.

I shall endeavour to convey to you an accurate idea of the diseases in which I now desire to excite your interest, partly by a brief history of a few typical cases, and partly by a general description of their leading and characteristic features. In order to give greater variety and completeness to my illustration of these maladies I shall select some cases from those which I observed in my hospital practice many years ago, and others from the more recent records of private practice.

I beg it to be understood that in using the terms "mind" and "mental," as I shall frequently have to do in the course of these lectures, I mean by these expressions no more than is implied in their use by scientific psychologists. We know nothing of mind as a separate entity—apart, that is, from cerebral organisation and function. Mind is an abstract conception, like heat or motion, and it is conveniently used to designate a set of complex psychological energies. It comprehends volition, reason, affection, &c.—phenomena which are inseparably associated, so far as we know, with a material organisation. As physiologists, in our study of mental phenomena we make no reference to theological doctrines or metaphysical theories. We have no sympathy either with those who charge physiologists with materialism or with those who contemptuously speak of theologians as superstitious. With this preliminary explanation I will give you my first illustrative case.

CASE 1.—Mrs. L——, aged sixty-five, the wife of a farmer, consulted me on Jan. 8th, 1872. She had been ill and under medical treatment without benefit for a year. She was a woman of great energy and spirit, but since her illness she had been very weak and nervous, and unable to attend to her household affairs. Her appetite had gone, and her sleep was constantly disturbed by distressing dreams, during which she often fancied that she was falling down steep precipices or into deep water. After such a night she got up feeling more tired than when she went to bed. She perspired profusely during the night. Of late there had been some œdema of the legs, apparently from debility. There was no evidence of renal, cardiac, or pulmonary disease.

I now inquired for the cause of all this nervous disorder, and it was not difficult to find. She had been in perfect health up to a year before, when one day, as she was driving with her husband in a dog-cart, the horse ran away. Her husband was first thrown out, and after a gallop for some distance along the bank of the Thames, at the risk of being pitched into the river, she was thrown out, and her arm was hurt, but not very seriously. The arm soon got well, but the effect of the mental shock continued.

Having heard this history, I said to her, "If I can make you sleep quietly for a few nights I shall cure you quickly and completely." I then prescribed twenty grains of chloral hydrate to be taken every night, and a mixture, containing quinine, tincture of nux vomica, and hydrochloric acid, to be taken three times a day after food. I saw her again on January 16th. She had taken the chloral for seven nights. She had slept well without dreaming, she had therefore got up refreshed, her appetite and her spirits had returned, and she declared herself quite well. Her sister, who came with her, said to me, "Her recovery is quite a miracle." I replied that it was a simple and natural result of a few nights of quiet sleep and freedom from the harassing terror of the distressing dreams which had so long troubled her. I advised her to take a half dose of chloral for a few nights longer. Her sister called with another patient on February 26th, and reported that Mrs. L—— had continued her medicine for a week after her second visit, that her appetite, her spirits, and her sleep were good, and that she was quite well. I have several times heard since from the friends and relatives of this lady that she has continued in good health.

This case is a good example of a numerous class in which the effect of a sudden violent mental shock is continued and intensified by nightly recurring dreams, during which the brain is worried and exhausted, and the patient gets up feeling more tired than on going to bed. This condition of nervous system, if not removed by remedies, is often continued for an indefinite time until some more serious disorder results.

The following case is an illustration of the terrible consequences which may result if the state of dreaming restlessness, which was so speedily removed in the previous case, is permitted to continue unchecked.

CASE 2.—A. S——, a warehouseman, aged twenty-nine, came to me at the hospital in July, 1851, and said that he was subject to epileptic fits. His intellect was impaired, and he could give but an imperfect account of himself, so I desired him at his next visit to bring his wife with him. She was a very intelligent woman, and from her I obtained the following remarkable history. The husband had always been a sober and steady man, and he never had any serious illness until he became subject to fits, the origin of which she thus accounts for. Seven years ago he was returning with his wife and some friends from Epsom races, when a child in the road accidentally fell under the wheel of his chaise, and was killed. The man was much horrified at the sight of the child's crushed head. That night he started up in his sleep, and called out, "Oh! save the child." He continued thus to call out in his sleep almost every night, and sometimes two or three times in the course of the night. When he started up in this manner he often screamed so as to awaken and terrify his children. At the same time he struggled and clutched with his hands; but when his wife aroused him (which she sometimes had a difficulty in doing) he usually appeared to be quite unconscious that he had been dreaming or making a noise. At other times he complained of having frightful dreams, and, putting his hand to his head, would say that he felt as if he were going out of his mind. Sometimes he exclaimed, "That child haunts me night and day"; at other times, "There is that child again"; and often, when in the street he has seen a child near a horse, he has been in great terror, and his hands have been convulsively clutched. The state of things which I have described continued unchanged for about two years; then he was seized one morning soon after getting up with a sudden and violent fit of convulsions. About two or three weeks after he had two similar fits while in bed, and in about six or seven weeks after this he had another attack. The fits, which are evidently epileptic, frequently recurred up to the date of this history being taken. He has had three or four, and on one occasion, five fits in a day. The longest interval between the fits has been

eight or nine weeks. One of the most remarkable features in the history of this poor man is the fact that he had continued to be haunted in his dreams almost every night by the same horrible vision of the child, exciting the same startings up with screams and exclamations. This had occurred, as his wife assured me, so lately as the night before these notes were taken, seven years after the fatal accident. After his epileptic attacks he had sometimes been maniacal, and more than once he had attempted suicide. He had a well-formed head, but his expression was heavy and fatuous, and his memory and his mental faculties generally were much impaired. This sad case had gone beyond the reach of remedies; but what a different history might not this have been if at any time during the two years before the occurrence of the epileptic attacks he had taken for a few nights in succession some soporific pill or draught, which might have broken the habit of dreaming, and thus restored rest to his distracted brain. The history of this case affords a good illustration of the tendency which the habit of dreaming restlessness, when once established, has to perpetuate itself, and to induce other serious consequences.

I will next give you some particulars of a case in which distressing symptoms of very long standing were completely removed by the temporary use of opium at bedtime.

CASE 3.—R. M——, a tailor, was thirty-two years of age when he came under my observation, in October, 1850. He had been a delicate child, but between the ages of nine and twenty-three he had been healthy and strong. At the latter period his father, who had a good business, absconded, taking his money with him and leaving his family destitute; and the son now had to provide for thirteen persons besides himself, including his own wife and one child. From this time he was fearfully harassed, and suffered the usual horrors of intense mental anxiety, restless nights, fearful dreams, spectral illusions, and confusion of thought, to a degree which has often rendered it impossible for him to attend to business. He has often been tempted to commit suicide, and has been enabled to resist the temptation only, as he says, by the force of religious principle. At one time, for a period of two or three years, he was so nervous as to be incapable of taking care of himself, and he had a man to watch him. His habits have always been strictly temperate. This history was obtained partly from himself and partly from his wife, who is a very intelligent and apparently truthful woman.

When I first saw him he was tolerably well nourished, but his face was pale; his expression was torpid rather than anxious; his sleep was disturbed; he complained of great confusion of thought and of "losing himself"; he had a slight cough, and a great dread of consumption. I did what I could to encourage him. I assured him of his freedom from bodily disease, and of my hopes that he might recover. I advised him to take a walk daily in the open air; and on the 28th October I prescribed compound soap pill, two grains every night; and tincture of perchloride of iron, twenty minims, with infusion of quassia, one ounce, three times a day.

On the 11th Nov. the report is that he sleeps soundly, and his appetite has been much better since taking the medicine.

Nov. 18th.—He is looking much better and brighter; he now feels that he can do his work, and he is confident that he will get well. He has had no confusion of thought the last few days. Repet.

Jan. 13th.—He has continued to improve since the last report, and considers himself quite well; his countenance is natural, cheerful, and intelligent; he sleeps well and has neither dreams nor fears; "life is now a pleasure to him instead of being a constant dread." He has no work at present, but he feels quite fit for working. He has continued to take the mixture regularly, but the night pills only occasionally.

March 27th.—Two days after my last report he undertook the management of an extensive tailor's business, which he conducts with ease and comfort to himself, and to the entire satisfaction of his employers. He declares that he never was better in his life, and his wife thinks the same. He looks well and strong. Since the last report he has taken no medicine except an aperient pill occasionally.

In no other case that has come under my observation have symptoms so serious and of such long duration disappeared so speedily and completely as they did in this instance. The improvement, too, was permanent. I saw the man two years afterwards, in March, 1853, when he told me that he was in the same situation, and although the hours were long and the work heavy, he had not been one day absent on account of illness. He slept and ate well, and his countenance was cheerful and intelligent.

I will next give you a brief report of a case in which mere overwork of brain was the exciting cause of nervous symptoms.

CASE 4.—Mr. H. C——, aged twenty-three, articled clerk to a solicitor, consulted me on March 7th, 1872. For several weeks he had suffered from headache, confusion of thought, and inability to work. His appetite was bad, and he complained of uneasiness after taking food. He slept badly, and was much distressed by dreams. The cause of the symptoms in this case was overwork of brain. He had been reading most injudiciously, sometimes from eight o'clock in the morning until two the following morning. When he came to me he had been away for a month's holiday, during which he abstained from all mental application, but he was no better for the change. He had continued to sleep badly, and he was therefore unrested. I prescribed twenty grains of chloral hydrate to be taken every night. He was on his way home when I saw him. He wrote to me on the 16th of March that "for the first four nights he had the most profound sleep, without any dreams; since then he had not had quite such unbroken sleep, but he was thankful to say that he was wonderfully better." I advised him, in reply, if the dreams continued, to take thirty grains of chloral for a few nights, and then gradually to reduce the quantity and leave it off. I heard from him again on March 26th that his sleep was now very good, the pain in his head had ceased, and he intended to return to work that day week.

I wrote lately to this gentleman asking for a report of his progress since I last heard of him. He states that he remained, with quiet work, in pretty good health for some five months, when he had a slight renewal of his old complaint. He took a few doses of chloral and a little rest from work, and then went to Switzerland, where he did some good mountaineering. He returned, read up for and passed his examination, and has stuck well to work ever since, feeling very little of his "old enemy" except "after sticking too closely to work." He goes on to say that he finds plenty of exercise and early to bed the great preventive, but he thinks "the chloral an invaluable remedy." He adds that "after taking the chloral for some time he found no difficulty in leaving it off."

In the next case excessive brain-work with anxiety caused painful symptoms, which quickly yielded to treatment.

CASE 5.—I was consulted a few months ago by my friend Dr. ——, thirty-five years of age, who complained of a painful hyperæsthesia over the whole left side of his body; so sensitive was the skin that even the touch of his shirt gave him pain. He was apparently in robust bodily health, but his nights were disturbed by dreams, and he got up unrefreshed. I knew that he was overworked, and that he was over-anxious. I advised him to take a small dose of chloral at bedtime for a few nights, and I said "a few nights of quiet sleep will rest your brain and remove your nervous symptoms." A fortnight afterwards I received from him the following note:—"Here is an interesting clinical fact. I suffered from hyperæsthesia of exactly one-half of the body—the left side—for nearly a month. Even Brighton failed to cure it. After ten grains of chloral I was much relieved, and after four doses of ten grains on alternate nights, *it has entirely disappeared*. My brain, which has for months felt queer, has got a new lease of activity; I feel ridiculously well, and am amazed at the change. I see now that my ailments have all been due to want of sleep." My distinguished friend has had no return of his unpleasant symptoms; he is now free from anxiety, and his energetic brain is working as hard as ever.

The cases which I have thus briefly described will suffice to convey a general idea of the symptoms which result from overwork, mental strain, and nervous shock. I proceed now to point out some of the more common causes of nervous disorder, with a view to facilitate their recognition by those who are investigating the history of nervous diseases. It will be unnecessary to dwell upon those causes of mental anxiety whose influence is immediately and universally recognised, such as the illness or the death of relations and

friends; or, what is often worse than illness or death, the misconduct of those in whom a deep interest is felt, reverses of fortune, failures and disappointments in business, &c. The operation of these causes is so obvious and so powerful as to be seen even by the least observant. We may commonly notice that an overworked man, whether his work be mechanical or mental, becomes an over-anxious nervous man. The overtaxing of the strength is attended by a sense of fatigue and exhaustion, loss of appetite for food, and often by inability to sleep soundly; with this there comes an anxious dread of breaking down, and the combination of fatigue, anxiety, and unrefreshing sleep is a common cause of mental and bodily collapse. And here it may be observed that habitual indolence and neglect of duty often occasion as much mental disquietude as excessive labour and overfatigue. Those who kill time are not unfrequently

> "Haunted much by visions strange,
> And sore perplexity of roaming dreams,
> The spectres manifold of murdered hours."

The infringement of moral laws brings discomposure and anguish upon the mind as a physical injury gives bodily pain. Some of the most distressing cases of nervous disorder are those which result from the excessive indulgence of the baser animal passions. This is partly a result of the nervous exhaustion and disorder which too often follow upon excessive nervous excitement; partly it is a result of the remorse and self-reproach which torture the man who is conscious of degrading habits. It is scarcely necessary to remark that alcoholic excess will aggravate the effects of overwork, anxiety, and other disturbing influences.

We frequently meet with instances of severe and long-continued nervous derangement as a result of a momentary but violent mental shock. Cases of epilepsy in which the fits have been the result of fright are by no means uncommon. It is a well-known fact that some young and nervous subjects have been frightened into epilepsy by seeing another in a fit. Some time since I heard of two twin brothers one of whom became epileptic. They both continued to sleep in the same room, and the result was that the second soon became epileptic too.

The causes of sudden and violent mental shock are very numerous, and most of them are so obvious as to require no comment. One of my hospital patients (a woman) was excessively nervous long after receiving a fright from the collision of two steamboats, and a false alarm that the boat in which she was a passenger was sinking. I have had several patients who have suffered long and seriously from the nervous shock of a railway collision. One gentleman who was much bruised and shaken in the collision at Harrow Station, in November, 1870, was excessively nervous, and had his sleep disturbed by frightful dreams for several months after he had recovered from the serious physical injuries which he sustained in that terrible crash.

The alarm of fire is a frequent cause of long-continued nervousness. Rather more than twenty years ago the Olympic Theatre was burnt down, and for two or three years after the fire I had several hospital patients, both men and women, who had lived near the theatre at the time of the accident, and who had continued to dream of fire, and to be excessively nervous and timid.

In directing attention to these various sources of nervous shock and mental anxiety, I have acted in the spirit of a suggestion which is contained in the following remarks by Dr. Latham:* "Prior to diseases, to their diagnosis, their history, and their treatment, prior to them and beyond them, there lies a large field for medical observation. It is not enough to begin with their beginning. There are things earlier than their beginning which deserve to be known. The habits, the necessities, the misfortunes, the vices of men in society, contain materials for the inquiry, and for the statistical systematising study of physicians, fuller, far fuller of promise for the good of mankind than pathology itself."

The kind of inquiry here referred to, and commended to our notice by Dr. Latham, is, in my opinion, an essential element of a truly scientific pathology, and with reference especially to diseases of the nervous system its paramount importance is indisputable. It would not be difficult to show that many serious errors which have prevailed with regard to both the pathology and the treatment of some of these affections are attributable to a disregard of that portion of the patient's history which precedes the occurrence of actual disease, and a study of which is requisite, as well for the discovery of the true cause as for directing the successful treatment of the malady.

* Clinical Lectures on Diseases of the Heart.

Clinical Remarks
ON
TAPPING AND DRAINING THE PLEURA.

Delivered in University College Hospital,

BY BERKELEY HILL,
SURGEON TO THE HOSPITAL.

GENTLEMEN,—This patient, with fistula in the thorax and abscess in the right pectoral muscle, caused by the escape of pus from an empyema, affords me an opportunity of briefly reciting to you the leading points connected with thoracentesis.

The effusion may be merely dropsical fluid from neighbouring organic disease, inflammatory serous exudation, or pus. To remove these collections thoracentesis may be needed in three groups of cases. (1) In very copious effusions death is threatened by gradual suffocation, but it more frequently takes place suddenly by syncope—a contingency you should never forget. (2) When the effusion compresses one lung, and seriously impedes the action of the heart. (3) When there is hectic or pus it is necessary to open a free drain from the lower part of the cavity in order to gradually close it.

In chronic pleurisy absorption is very slow. Meanwhile the lung is squeezed against the spine, and in time its tissue becomes so much altered that it cannot expand again, or fibrous adhesions grow strong enough to bind down the lung permanently. Such bands also, though less frequently, fasten the pericardium in an unnatural position, by which the action of the heart is hindered. The pleura itself, by long-continued inflammation, becomes very thick. At the post-mortem of the child whose photograph is before you we found the pleura to be one-eighth of an inch thick, making a leathery unyielding cover, fixing the lung to the spine. In this condition, though we had no difficulty in draining the pleura, the lung could not expand to fill up the cavity. In consequence, the skeleton of the child continued to collapse and twist till this extraordinary deformity was produced. Serous effusions after a time are apt to become purulent; in this state they are still less readily got rid of than serum. Pus, too, frequently excites hectic or septic fever, and, by ultimately perforating the pleura, may penetrate to a bronchus or to the surface of the chest, and thus form bronchial or thoracic fistulæ. Spontaneous cure by this means is possible, but, through the indirect course of the fistula, it is tedious.

Formerly a long list of objections were put forward against this operation. Most of them are abandoned; but for the rest a few words of notice may be introduced. Let us take, first, the possibility of wrong diagnosis. Doubtless this cannot always be avoided. But in any case a fine canula and exhausting syringe may be plunged into the chest without the slightest apprehension. Dr. Ringer uses the ordinary subcutaneous injection syringe. This may be inserted in several places if the fluid be not hit upon by the first puncture. Such small wounds of a solid tumour or of the lung itself give no trouble. Bowditch* says he has never seen harm ensue even when blood has been drawn out through the ordinary canula. The risk of wounding the intercostal vessels is a bugbear only to the theorist; in practice it does not occur. I do not know that a single case has been recorded, nor has Bowditch met with an instance in 250 cases. It is alleged that to tap while fever is present increases the inflammation. But not necessarily. Dr. Ringer's observations† show that the temperature in several cases did not rise after tapping, while when hectic is present, as with our patient of to-day, the temperature rapidly falls after

* Thoracentesis. New York. 1870.
† Practitioner, Dec., 1874.

the pus has been withdrawn. Indeed, you may be convinced that no matter what other affections coexist, you will not increase but lessen the patient's sufferings, and help him to recover by drawing away the fluid that harasses him. Be quite satisfied on this point. That fresh fluid is often effused into the pleura after tapping is no real objection. It can be tapped again as often as it collects in any considerable quantity; nor is the absorption of consecutive effusions impeded by withdrawing the first. Indeed, contrary to what was once alleged, repeated puncture is more likely to prevent the conversion of serum into pus than to hasten it. Meanwhile the lung and heart, being frequently relieved from pressure, are less liable to be permanently fastened down in an unnatural position. The entry of air is an objection which has some weight, though it is greatly overestimated. Air has got into the pleura again and again without any mischievous result; but as it is easy to keep air out, that should be always done when the fluid is serous. Whether there is any advantage in closing the wound after evacuating pus is not yet clear; certainly the remainder or any subsequently secreted pus is rarely absorbed spontaneously when the wound is closed. According to my experience, the cavity shrinks and the lung expands only when constant drainage is maintained; thus time is saved by beginning to drain at once. But I must not omit to state that in some of Dr. Ringer's cases the pus gradually ceased to form after simple repeated aspirations; so that perhaps the following rule is the best to lay down for practice. You may simply tap all effusions the first time, unless you have already parietal abscess, hectic, or putrid pus; but on the second tapping, drain the purulent effusions; serous effusions may be simply tapped as often as any considerable bulk of fluid collects.

The mode of operation depends on the nature of the fluid. If serous—and it is probably so when not accompanied by consolidation of the lung or parietal abscess, nor of long standing—it can be reached most readily at the infra-axillary region, and in the sixth or seventh interspace. As you know, in the infra-axillary region the sixth interspace is on the level of the nipple; hence it is easy to select a convenient position for the trocar. This should be plunged in at once without preliminary incision, for the puncture closes, when the instrument is withdrawn, by the elasticity of the skin; but, to make sure, a bit of lint soaked in collodion may be put over the puncture. The quantity to be removed at one tapping depends greatly upon the effect the evacuation has on the patient. There is no advantage in extracting as much as possible, and great pain and even danger at times ensue from doing so. You need not aspirate at all, in most cases; the pressure within the chest will drive out the fluid fast enough, though the syringe is useful to force back a clot or shred of lymph, if such block the tube. Coxeter has lately improved the aspirator by connecting the evacuating nozzle with a long india-rubber tube, by which the stream can run direct to the pan without entering the barrel of the syringe, and the exhausting or injecting power is reserved to overcome accidental plugging. But in most cases I prefer the well-known Thompson's trocar, in which, as you see, the trocar, as it leaves the canula, enters an air-tight stuffing-box; thus air cannot rush into the pleura if the stream ceases to flow out. Under all circumstances let as much flow as will come readily, and stop it if the patient feels a tearing pain or begins to cough violently and continuously—symptoms which Trousseau tells us are caused by the expanding lung drawing air along its disused tubes. Should a second tapping be needed, the patient will readily consent when he has once felt the relief it brings.

When intending to drain, an orifice should be made further back and lower down than suffices for simple tapping. The best situation is that defined by Bowditch—one opposite the lower angle of the scapula, and (in an adult) two inches higher up than the lowest point of respiratory murmur on the sound side. He feels with his forefinger for an interspace, which would be the eighth or ninth, and plunges in his trocar quickly and freely, taking care to go deep enough that he may reach the fluid, through thick layers of lymph, if they be present. When quite sure beforehand that the fluid is pus, use a canula wide enough to let a drainage-tube pass through it; and when the stream of pus flags introduce five or six inches of india-rubber drainage-tube; tie a piece of silk thread firmly to the outer end, and secure that to the skin by placing over it a good-sized disc of diachylon plaster three or four inches above the wound, to prevent the whole of the tube slipping into the cavity—a mishap that has occurred ere now. Then cover the wound with a broad thick layer of tow or tarred hemp, which can be renewed as often as it is charged with matter. In a day or two the quantity will not exceed a few drachms per diem, and is easily managed. Keep the patient as much as possible on his back and injured side, and protect him well from chills, to which he will be sensitive for a long time, and thereby to fresh pleurisy. If the tube first used, being necessarily a small one, does not drain freely enough, in two or three days the orifice will have widened sufficiently to allow a larger tube to take the place of the first. Again, if while the fluid flows the character of the matter induces you to begin drainage when you had tapped with the intention of closing, you may widen the orifice by incising the skin and muscles parallel to the rib while the fluid is running freely, and pass in the drainage-tube by the side of the canula still *in situ*. If you leave the passing of the tube till the chest has emptied itself, you will have much more difficulty in accomplishing its introduction. When there is already abscess in the front of the chest, you may disregard it, and in most cases it is better to do so, and make your aperture at the back as if it were not present. The matter soon drains again into the chest and disappears. A patient put by Sir William Jenner under my care last spring had bulging abscess in the infraclavicular region. The skin was red and fluctuation most distinct. Drainage was made in the back. The abscess shrank considerably even while the pus was running through the canula, and in twenty-four hours all signs of it had disappeared.

With regard to using anæsthetics, certain authorities—Dr. Bowditch, for example—are most strongly opposed to their use. Dr. Bowditch has narrated* to Dr. Clifford Allbutt of Leeds, that in five cases where ether was administered, two died shortly after the operation, a third was restored only by most energetic means, including tracheotomy, and the ether was abandoned in the remainder before the operation was complete. With such examples, anæsthetics should not be used for simple tapping. If the patient dread the prick, the skin may be numbed by ether spray. Nevertheless, when an incision has to be made through thick muscles at the back, and the often tedious operation of introducing a drainage-tube to be undergone, the pain is severe and the shock to the patient in his depressed state proportionately great. In such cases chloroform is given without hesitation in this hospital, and certainly so far without a fatal result. I have notes of seven† cases where I have operated while the patient was under chloroform, large quantities—twenty, thirty, and thirty-seven ounces—of fluid having been withdrawn without any serious difficulty, and in most cases without any unusual symptom whatever. I do not know how often my colleagues have resorted to chloroform, but I am not alone in using it. Dr. Allbutt also remarks that in one of his cases chloroform was employed, and the result was "fairly good." Hence, though anæsthetics are not to be lightly resorted to, they may be safely employed when really required. It is worth notice also that *ether* was the source of mischief in the fatal cases, and that *chloroform* was well borne in our cases.

Lastly, a few words about injections. Boinet obtained great results with them. He used to tap the pleura and inject solution of iodine and close the wound at once, getting sometimes rapidly a complete cure. Used thus I have had no success with injections, and very little in any way. When there is stinking pus and septic fever, an effective drain usually quickly clears off the putrid matter, and the septic fever subsides rapidly. In extreme cases you may wash out the cavity with warm water injected through a flexible catheter, but astringent or antiseptic solutions of all kinds are not wanted, and they annoy or hurt the patient.

Sometimes, owing to adhesions or other loss of expansive power in the lung, there remains permanently a small cavity, which, if kept clear by assiduous drainage, interferes little with the patient's health or occupation. An omnibus-driver, who had extensive empyema three years ago, is now regularly at work, and pays us a visit now and then that we may be sure he keeps up proper drainage of a space that

* Medical Times and Gazette, May 16th, 1874.

† An eighth case has occurred since these "remarks" were made.

refuses to close completely. He, as well as another patient, who has worked on a lighter up and down the Thames for the last nine years, and is at the same work still I believe, wear a silver canula night and day, through which two or three teaspoonfuls of matter ooze daily. They are both much exposed to the weather, yet are strong and hearty.

The tube must be worn as long as any matter is secreted. One of the patients on whom I operated, a girl, wore it from her eighth to her thirteenth year, during which period she had scarlet fever; yet she is now well-grown, straight, and has very little contraction of the side where she so long had empyema. In concluding, let me mention that when there is great distortion and displacement of the viscera, through collapse of the thorax after empyema, sudden death by syncope may happen. The child whose pleura was so much thickened died thus.

A SECOND SERIES OF

CASES ILLUSTRATING THE TREATMENT OF HÆMORRHOIDS AND PROLAPSUS BY THE CLAMP AND CAUTERY.*

BY HENRY SMITH, F.R.C.S.,
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Two years since I had the honour of bringing before the Fellows of the Medical Society of London the results of my experience of 300 cases of hæmorrhoids and prolapsus of the rectum operated upon by the clamp and cautery—a method of treatment which I had prominently brought before the profession eight years previously, when I had the honour to deliver the Lettsomian Lectures from this place. The aforesaid results were fairly laid before you in this paper, and, as some of you remember, were pretty freely discussed and criticised. Since that period my experience of this operation has brought my numbers up to more than 400 cases; and now that I have reached this point, and more especially as the experience of the last two years has enabled me to illustrate this operation by cases of greater severity and variety, I have thought it right to furnish you with the information which these additional cases have afforded me. You are aware that I have always contended that the operation by the clamp and cautery, as modified by myself, is a much safer and more satisfactory one than the old-fashioned plan of using ligature. The large experience which I related to you two years ago quite confirmed me in the views which I entertained about this plan of treatment when I delivered the Lettsomian Lectures. I am glad to say that this experience has been shared with me by many surgeons, not only in this country, but in America, India, and Australia; and the manner in which these gentlemen have spoken of the plan of treatment has been most gratifying.

It is not necessary for me to go into the details of the operation which I perform, as they were very minutely pointed out in my lectures, and I believe they are familiar to most surgeons. I will only briefly state that the main feature in this treatment consists in removing the diseased growths or tumours immediately, and arresting or preventing hæmorrhage by the application of the actual cautery. The fixing and removing of the growths are effected by the application of the screw clamp, and the subsequent use of scissors. The operation has the advantage of being completed at once, whereas in that proceeding which had been heretofore so much used, and indeed by some surgeons is used now, by the ligature, the operation cannot be completed at the time, as a given number of days must be allowed to pass before the complete removal of the diseased structures, which have been strangled by the ligature for the purposes of preventing hæmorrhage and causing sloughing and ulceration of the parts involved. This application of ligature to numerous sensitive growths and their subsequent separation are of necessity attended with much local and general disturbance, and when the ligatures separate at the end of a week there is still a large raw surface left, and of necessity the patient is confined to bed or his house for a much longer period of time than if the tumours had been bodily removed at once. However, these matters were freely discussed by me at the time, and they have been freely, and somewhat fiercely, fought over since in this room, and in the journals, and I shall not take up your time to-night in going over the ground again; but, just to show the extraordinary nature of the opposition which has been urged against the operation, I may state that one well-known surgeon wrote a long letter to THE LANCET denouncing the operation. Luckily for me, but most unluckily for himself, the writer let it appear that he had never once made trial of the operation. Another well-known surgeon wrote a book on diseases of the rectum, and so zealous were his efforts to prevent the clamp and cautery operation from coming to the front, that he stated one of the main objections to it consisted in this fact—that the proceeding lasted over an hour. It has often been a source of great amusement to the numerous spectators in King's College Hospital to hear this quotation when they have just witnessed the performance accomplished by me in a few minutes. Of course to such objectors no answer need be made, but others, like my friends Mr. Allingham and Mr. Cooper, have criticised it after having tried it, and such men have a right to be heard, and if they have not seen the merits of the treatment so clearly as I have, I can only hope that their conversion may arrive in time.

And, now, as regards the first and more important point furnished by the present series of cases—viz., the death-rate. When giving the results of my 300 cases, I had to mention the particulars of three cases in which death followed my operation; and, without repeating the details of these cases, I may here state that in all three patients the constitutional powers of life had been so reduced by long-continued hæmorrhage in two, and suspected organic disease of the liver in the third, that the deaths could not be fairly attributed to the particular kind of operation. I was in hopes that, when I presented you with my 400 cases, I might be able to say I had not another death to record; but I regret to state that one death has resulted, and I believe may be fairly attributed to the particular kind of operation performed, and here are the details.

It occurred in the person of a gentleman between sixty and seventy, who had suffered long and painfully from a very severe prolapsus of the rectum, consisting of a mass of mucous membrane and large folds of thickened integument, forming a large tumour. I unfortunately, as I believe now, determined to remove this growth at one operation, and proceeded to use the clamp. I first clamped three portions of mucous membrane high up, and applied the cautery; but, on proceeding to unscrew the clamp, I found one or two large vessels bleeding profusely. Knowing from previous experience that I could stop any hæmorrhage from the rectum by the cautery, I put on the clamp again and reapplied the cautery very vigorously, and completely arrested the bleeding. I then removed the whole of the large external mass with the scissors. The patient bore this severe operation very well, and did not have any bad symptoms the next day; but on the night following he was restless. On the third day he was suffering from abdominal pain, and soon got the anxious face accompanying peritonitis. The symptoms rapidly increased, and he died on the fifth day. Unfortunately, I did not get any post-mortem examination.

Now, on reviewing this case I cannot doubt that the death was due to peritonitis produced by the too excessive employment of the cautery; and I think it possible that I may even have injured the peritoneum, for we know that in some of these very old and large cases of prolapsus the constant descent and dragging on the peritoneum may dislocate, as it were, that membrane, and bring it down much nearer to the anal orifice than natural, and that it may be injured; at all events, if it were not directly injured, the mischief must have extended to it from the adjacent tissue. I was much distressed at this case, for I believe it ought not to have occurred, and I do not think it is ever likely to occur again; for since this event, now just two years ago, I have in such—of which I have had repeated—instances contented myself with clamping the mucous membrane very sparingly, and have been very liberal in removing the external or muco-cutaneous portion of the prolapsus, and in one or two very severe cases I have performed the operation

* Read before the Medical Society of London.

at two sittings—viz., by clamping the mucous membrane first, and in a week or ten days afterwards dealing with the outer part. This case, I am happy to say, is the only instance where death has resulted, and I have had more than ninety cases since this occurred, and cases of the very worst description, where most certainly I should be afraid to use the ligature, in consequence of the mass of tumours which would have to be ligatured, or in view of the shattered state of the system produced by excessive hæmorrhage or other morbid conditions. Indeed, in this last series of cases this morbid condition has been most aggravated, and not without anxiety have I determined to deal with them. I will speak about hæmorrhage connected with the operation by and by, but I may here mention that the anæmia and reduced condition produced by long-continued bleeding is that which is so frequently met with in these cases, especially in ladies. And it is always a source of anxiety, for we all know what a tendency there is for pyæmia to follow a surgical operation when the blood is in the state mentioned. And I may now call to mind a case of a lady sent to me by Dr. Frank from Cannes. This poor lady was like dirty marble, she had suffered so terribly from hæmorrhage; she had also some chest symptoms, and had been told that she must on no account have the bleeding from the rectum stopped. Fortunately she saw Dr. Frank, who begged her to have my opinion. I could not find any active disease in the chest, although she had some spitting of blood, and I at once recommended the operation. Influenced, however, by the opinion already given, she would not consent until she had been seen by Dr. Peacock, and subsequently by Mr. Mac Cormack. Both these gentlemen agreed with me, and I operated, taking great care that she should not lose any blood at the time or afterwards. She made an excellent recovery, and some months afterwards my patient wrote to me saying she had got quite strong, and only expressed her regret she had not been operated on sooner. About the same time a very similar case of a lady who had gone through the most trying bodily and mental ordeals was sent to me by Dr. Fayrer. She also was terribly reduced by hæmorrhage and its sequelæ, but went through the operation as well as the other, with excellent results. These bad cases are those best suited for the treatment by the clamp and cautery, for the hæmorrhage is at once arrested, and the complete sealing up of the vessels produced by the hot iron is, in my opinion, the very best safeguard against pyæmia we can have.

(To be concluded.)

ANALYSIS OF TWELVE CASES OF PNEUMONIA,

ADMITTED INTO WESTMINSTER HOSPITAL DURING THE MONTHS OF MARCH, APRIL, AND MAY OF THE PRESENT YEAR.

BY F. DE HAVILLAND HALL, M.D. LOND., M.R.C.P.,
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BETWEEN the 4th of March and the 15th of May, or not quite eleven weeks, there were admitted into the Westminster Hospital twelve cases of pneumonia, some of which present special features of interest.

Of these twelve, ten were males and two females, which is a greater proportion of males than usual, the ordinary ratio being as two or three to one; the preponderance of males being accounted for by their greater exposure to vicissitudes of temperature.

If we except two cases on the list—No. 1, a man addicted to drink, and No. 4, a boy of eight, in whom the pneumonia was of secondary importance as compared with the pleurisy—the remainder occurred in early adult life, varying from seventeen to thirty, which is, according to Gunsburg's statistics, the period of life most prone to this disease.

Six of the patients died and six recovered. Of the six who died, two had been addicted to excessive drinking, another had just left the hospital convalescent from pericarditis; of the remainder the previous health had been good. The six who recovered had all enjoyed good health before they were attacked.

Dr. Peacock, in his interesting "Report on Cases of Pneumonia," says that the best measure of the intensity of the disease is undoubtedly the temperature; but out of 32 cases he records in only 3 cases did the temperature exceed 104° F., while in 8 out of my 12 cases the temperature reached or exceeded 104° F. Below is a table giving the number of the case, the highest temperature, and the day and period of day on which it occurred.

No.	2	...	104·6° F.	on 6th day,	morning.
,,	4	...	104·3° F.	,, 2nd ,,	,,
,,	5	...	105·8° F.	,, 2nd ,,	evening.
,,	7	...	104° F.	,, 9th ,,	morning.
,,	9	...	104·6° F.	,, 2nd ,,	evening.
,,	10	...	105° F.	,, 5th ,,	,,
,,	11	...	104° F.	,, 3rd ,,	,,
,,	12	...	104·2° F.	,, 5th ,,	morning.

As to situation: of the twelve, nine were on the right side and three on the left. Out of the nine on the right side, the base was attacked in five cases; in one case the two lower lobes; in one the upper and lower lobe, the middle lobe being unaffected; in one the apex; and in one the exact situation was not determined. Of the three cases on the left side, in one the apex was affected, and in the other two the lower lobes.

So much for statistics, and now for a closer examination of the cases, which I shall take in the order of their occurrence.

No. 1.—C. B——, male, aged fifty-six, admitted on the 4th of March. This case was not remarkable for anything very particular. The man had been a hard drinker. He was admitted with signs of pneumonia of the lower two-thirds of the right lung, but there was no expectoration. He was not able to answer questions in a coherent manner, and a few hours after admission fell into a state of low muttering delirium, and died from exhaustion on the 6th. A post-mortem examination was not allowed.

No. 2.—J. C——, male, aged twenty-four. Admitted March 12th; died March 26th. This was a case of pleuro-pneumonia on the right side, which ended in pyo-pneumothorax from the bursting of an abscess of the lung into the pleural cavity. I have not gone into any detail, as the pleural effusion was the chief factor, the pneumonia being of small extent only.

No. 3.—C. M——, male, aged eight. Admitted March 15th; died April 9th. Pleuro-pneumonia, left side, ending in empyema and death from exhaustion.

No. 4.—R. H——, female, aged twenty-one; admitted March 15th. Typical case of pneumonia, affecting the right lower lobe. A fall in temperature of nearly three degrees on the fifth day, but it did not drop to normal till the eighth day of the disease, probably kept up by an intercurrent attack of pleurisy, as she complained very much of pain in her right side, but no friction sound was audible. She was treated with salines, and jacket poultices to the side. Discharged April 10th, perfectly well.

No. 5.—J. A——, male, aged seventeen, admitted March 19th. On the day of admission the following note was made: "Fairly well and at work up to night of 17th, when he was taken ill with sickness, giddiness, and rigors; slept all night and almost all yesterday. Mother noticed that he was delirious this morning. Pupils contracted; no rash; temperature 103·6°; pulse 144, very feeble; heart normal; chest nil. Complains of pain in right side when he breathes, and has pain in the head. Tongue moist, furred, flabby; bowels acted this morning for the first time for three days."

March 19th.—Evening temperature, 105·8°. Ordered carbonate of ammonia, five grains; mixture of acetate of ammonia, one ounce: three times a day. Brandy, four ounces.

20th.—Pulse 136, feeble; temperature 104·2°. Restless during the night, but not actually delirious; eyes suffused; complains of being hungry; tongue dryish down the centre. Bowels acted in the night. Evening temperature, 105·4°.

21st.—3 A.M.: Crepitant râle at apex; no dulness. 11 A.M.: Dull at apex of right lung; heart sounds intensified; tubular breathing; rusty sputa; crepitation at base of both lungs. Morning temperature, 104·6°; evening temperature, 104·9°.

22nd.—Pulse 132; respiration 60; temperature 102·4°. Very delirious all night; rambling now, and trying to get out of bed. Dull right apex in front down to third rib, and to spine of scapula behind; tubular breathing, bronchophony, and a little medium crepitation. Over the whole of the right back there is crepitation, with impaired resonance. Tongue moist, clean. Evening temperature, 105°.

23rd.—Very restless all night; delirious, and trying to get out of bed. Pulse 128, full and hard; respiration 68; temperature 103°. At apex the physical signs are unaltered; the whole of the right back is duller than it was yesterday, with tubular breathing and crepitation. Tongue moist, clean. Bowels acted this morning. Evening temperature, 104·5°.

24th.—Temperature at 1 A.M. 105·2°; pulse 132; respiration 72. At right apex there is now only slight dulness above the second rib, with mucous râles; right back dull all the way down, with tubular breathing and bronchophony. Very restless and delirious all night, trying to get out of bed; tongue red and dry. Evening temperature, 105°.

25th.—Pulse 140; respiration 76; temperature 104°. Right front as yesterday; mucous râles all over right back; restless and delirious all night.

26th.—Pulse 130, intermittent; respiration 56; temperature 101°; countenance livid; pupils dilated; retention of urine, catheter passed; tongue dry and brown; profuse perspiration; involuntary defecation; delirium less violent; floccitation. His friends were sent for, as he appeared to be dying. Ordered three eggs and eight ounces of brandy.—10 P.M.: Temperature 100·8°; no change; passed water voluntarily.

27th.—At 3 A.M. the patient fell asleep, and remained so till 9 A.M., perspiring freely, when he awoke much improved in appearance; sensible when spoken to. Temperature 99·4°; pulse 112, regular; respiration 50. Sputa viscid, purulent, very slightly tinged with blood; no dulness at right apex; rhonchi posteriorly; dulness at base, with crepitation and rhonchus above.

28th.—Morning temperature 98·2°; evening temperature 100·4°.

29th.—Temperature 97·8°. Discharge from left ear began yesterday; no dulness anteriorly; good vesicular breathing posteriorly; resonance impaired at base; mucous râles. Evening temperature 99·5°.

30th.—Pulse 80; temperature 97·8°. Copious discharge from ear; no headache; bladder distended; large amount of water passed. Evening temperature 98·6°.

31st.—Pulse 88, good volume; respiration 34; temperature 97·4°. Resonance only slightly impaired at base, air entering freely; no râles; able to pass water all right. Evening temperature 98·6°.

From this date he continued to improve. On April 5th it was noted that there had been no discharge from the ear for two days. On April 27th, after a most careful examination, the note is, "Resonance impaired above right clavicle; feeble breathing at right apex; no abnormal sounds." Discharged same day well.

I have ventured to give detailed notes of this case as it is an exceedingly good illustration of apex pneumonia. In the first place, he was in a state of great pyrexia for four days before any physical signs of pneumonia were to be detected; this, with the drowsiness, delirium, and contracted pupils, suggested at first the idea of typhus fever. Secondly, I would remark on the extremely violent character of his delirium, and there was no evidence to show that he had been a drinker. It has been denied that the delirium of apex pneumonia is more violent than that met with in other cases where the lung is proportionally affected; but the cases I have seen tend to the opposite conclusion. The pulse-respiration ratio was also very characteristic, keeping pretty steadily, at the height of the disease, in the proportion of rather less than two beats for one act of respiration. Thirty hours before any signs of pneumonia were detected the temperature of the axilla had reached 105·8° F., being a good instance of what Wunderlich would call pneumonic fever. On the sixth day of his illness nearly the whole of the right lung was affected, though the apex was beginning to clear up. Defervescence began on the ninth day, and was accompanied by profuse perspiration and the greatest prostration; but, after some hours' sleep, he awoke quite rational. In this case, as in two others lately under treatment at the Westminster Hospital, the patients have suffered from temporary retention of urine during the commencement of convalescence. Owing probably to some loss of tone and sensibility about the bladder, they allowed it to become greatly distended, and yet, when urged to pass water, they were able to do so.

(To be concluded.)

Medical Societies.

OBSTETRICAL SOCIETY OF LONDON.

THE discussion on the Relation of Puerperal Fever to the Infective Diseases and Pyæmia was concluded on Wednesday, July 7th, Dr. Priestley in the chair.

The PRESIDENT.—We now proceed to the discussion on puerperal fever, which has been adjourned on two or three occasions. It is the general feeling that the discussion should close this evening, and if necessary the time can be prolonged for the purpose. If Mr. Spencer Wells is present, he will have an opportunity of replying. I may add that we are honoured to-night with the presence of two of our distinguished honorary fellows, Dr. Fordyce Barker (who has come from America especially to take part in the discussion) and Dr. Charles West. Dr. Fordyce Barker has explained to me that he has much to say on this subject that may be somewhat at variance with what has been said by previous speakers, and he fears he will scarcely be able to conclude within the prescribed limits. He therefore throws himself on the indulgence of the Society if he transgresses.

Dr. SNOW BECK.—With your permission, Sir, I shall be very happy to concede any right of priority that I may have to the distinguished visitors who are present this evening.

Dr. FORDYCE BARKER.—Mr. President and Fellows of the Obstetrical Society: I feel that I have no right to waste your time in personal topics, except to express my warm appreciation of the honour I have received at your hands, and to appeal to your courtesy to excuse any deficiencies which may be charitably ascribed to weakness of the vocal organs or to the bashfulness which a stranger must feel in addressing such a body of obstetrical men on such a topic as puerperal fever. I may be permitted to say that this discussion is watched with great interest by your brotherhood on the other side of the Atlantic, but that, so far, it does not seem to have led to the happy result spoken of by the Psalmist, "He maketh men to be of one mind in a house." I shall aim, in the remarks which I am about to make, to confine myself closely to a discussion of the questions now before us, and to state my opinions, and the reasons which I have for holding such opinions, in the most terse, compact language compatible with clearness. If these opinions seem to be in antagonism with the great majority of those which have been expressed, I ask that they may not be regarded as partisan in their tone, but as a presentation of views necessary for a full and comprehensive study of the subject. I ask that the arguments urged may receive that candid analytical sifting requisite for a sound decision as to what is the true answer to the questions now before us. I concede to all, and I ask all to concede to me, that it is the truth, and not forensic success, which is sought for by all who speak in this discussion. I cannot suppose that the proposer of the six questions intended that all of us should accept each of these questions with all the qualifying phrases. Of the six questions proposed, the second and third only admit of the categorical answer of "yes" or "no"; and this will be one or the other, depending upon the answer given to the first question. If the first question be answered in the affirmative, the answer to the second will be in the negative, and the answer to the third will be in the affirmative; or the answers to all three of these questions may be exactly the reverse. I suppose the meaning of the first question, as defined by the second

and third, to be: Is there a disease peculiar to women after childbirth never met with under any other circumstances, as distinct as typhoid or typhus fever, scarlet fever, measles, or small-pox? I do not suppose that the proposer of these questions intended or thought that all who believed that the first question could be answered in the affirmative, that puerperal fever is a distinct disease, must therefore accept all the qualifying phrases. "Distinctly caused by a special morbid poison" is one of these qualifying phrases. Is this considered an essential characteristic of a distinct disease? Has science yet determined what the special morbid poison of typhoid fever is? If the phrase had been "*often* caused by a special morbid poison," I should have accepted it as true of puerperal fever, as I believe it to be true of diphtheria and several other diseases. A disease caused by contagion or infection is distinctly caused by a special morbid poison; but there are many diseases which result from multiple causes, of which I may mention diphtheria, typhoid fever, and others. It is just this phrase which seems to have debarred Dr. Farre and Dr. Richardson from answering the first question in the affirmative; and it is just the idea involved in this phrase which seems to have caused much of the obscurity and ambiguity in its discussion. It implies that a given cause—a special morbid poison, if you please—which produces a distinct disease, must always result in this distinct disease. Is this the case with numerous other diseases? In a wealthy family belonging to my *clientèle* I saw, a year ago, a lady dangerously ill with pyæmia, in consultation with Dr. Sayre, who was attending her for a severe traumatic injury. At our suggestion a careful examination of the house was made by a plumber, but no defect could be discovered which could explain the source of the blood-poisoning. Soon after, three of the family, one after another, were taken ill with a typho-malarial fever. I even insisted that the walls of the room should be torn down, when it was discovered that a leaden waste-pipe had defects which permitted noxious gases to permeate the house, but which were not sufficient to permit the escape of liquids to stain the walls. During the past winter I attended a gentleman with severe typho-malarial fever. His residence was in a large house constructed on the plan of the French apartments. This house was entirely occupied by families of wealth and refinement. During his convalescence diphtheria appeared. In another family in the same house I saw in consultation the first child attacked; afterwards the father and two other children, one of whom died, were attacked with the same diphtheria; and it is worthy of mention that the mother, who was removed from the house during the illness of the others with diphtheria, was confined with her fourth child under the care of Dr. Stone, one of our prominent physicians, and that her convalescence was not impeded by any puerperal disturbance either from diphtheria or typho-malarial or puerperal fever. On examination, it was found that the waste-pipes in this house were in precisely the same condition as the house I before mentioned. At the last meeting of the Society Dr. Playfair related some facts of recent occurrence at Notting-hill, where septicæmia in the wife, from which she barely escaped with her life, and diphtheria in her husband, seemed to be due to the same class of causes as that which produced the disease in the case I have mentioned. I ask you to note the language used by Dr. Playfair in relation to these cases. He says, "Who can doubt that these two diseases were caused by the same septic poison?" One of these diseases he names, from his theory in regard to the cause of the disease, septicæmia; the other, from its clinical phenomena, he names diphtheria. The idea involved in this phrase, "distinctly caused by a special morbid poison," implies that it results from only one cause, and that this cause must always be followed by identity of result—that if the poison is known to produce any distinct disease, then this disease must always follow the cause. The second qualifying phrase, to which I will simply allude and not discuss in detail, is, "distinct in its progress and the local lesions associated with it," as certain diseases specified. I have only to say in regard to this, that it seems to me that the several diseases mentioned differ in degree as to the definiteness of their progress and as to the definiteness of their local lesions, and that consequently puerperal fever cannot be compared with these diseases as a group in these particulars. I will now give my reasons for believing that puerperal fever is a distinct disease occurring to women after childbirth only. I think the definition given in the nomenclature of diseases emanating from the Colleges of Physicians and Surgeons is absolutely perfect: "a continued fever, communicable by contagion, occurring in women after childbirth, and often associated with extensive local lesions, especially of the uterine system." It is a disease which results from the absorption of poison causing various blood changes, independently of local lesions, which produce certain general characteristic constitutional symptoms. I need not discuss this point in detail, for from what has been said it is evident that localism or Broussaisism has no status in this Society; and those who believe that this is only a disease resulting from septicæmia and those who believe it is a continued fever are in agreement on this point. We can arrive at truth in medical discussion only by using language accurately. There can be no accuracy of idea without accuracy of language. The established usage of standard authorities in medicine is to designate as fevers all that class of diseases which, from the absorption of some poison in the system, independent of local lesions, produce certain blood changes, and also cause certain general characteristic symptoms; so that under this designation are properly and legitimately included not only those diseases severally called typhus, typhoid, relapsing, intermittent, remittent, and yellow fever, but all those constitutional and infective diseases which occur epidemically and endemically. When the specific poison is known which causes these constitutional diseases as the result of blood changes, then the name of this poison is given to characterise the disease, and we have as accepted terms, uræmia, septicæmia, pyæmia, and others of a like character. I will simply remark here that none of this class of diseases, so far as is known, ever occur as an epidemic or are contagious. The point that we are trying to settle is not a question of name, except so far as this: I take it that we are all agreed that the name given to a disease should be significant and appropriate. The gist of the matter, stripped of all its superfluous and obscuring elements in the inquiry, is whether there be a distinct disease which occurs in puerperal women, and in puerperal women only. The answer to this question can be derived only, as I believe all will agree, from three sources—from studying the causes, the clinical phenomena, and the pathological anatomy. I do not think that much information can be derived from studying the causes of this disease in order to settle the question under discussion, any more than there can be in settling the question from studying the causes whether typhus fever, relapsing fever, and diphtheria are distinct diseases. The study of the causes is of vast importance in a sanitary point of view, and hence I regard the paper which was read by Dr. Braxton Hicks before this Society several years since as a most valuable contribution to the subject. I think no one doubts that if a woman after confinement be exposed to the poison of scarlet fever or that of any other infectious constitutional disease, she will have scarlet fever or whatever disease she absorbs the poison of. I do not understand Dr. Hicks to claim that puerperal fever is only scarlet fever in the puerperal woman, but names this as one of the causes in the same category with diphtheria, erysipelas, mental emotion, and so forth. I think the evidence is conclusive to the vast majority of minds in the profession, established by numerous incontestable facts, observed not in sporadic cases only, but in numerous epidemics and in epidemics which have not occurred alone in hospitals and large cities, but which have ravaged large tracts of country in sparsely populated rural districts, that the poison of erysipelas may cause in women after childbirth a distinct disease which some of us choose to call puerperal fever, and that the poison of puerperal fever, if absorbed into the system of a man or a child, will cause in that man or child erysipelas. I need not refer to the medical history of Great Britain in proof of this assertion, but I perhaps may be permitted to refer to that of my own country for corroborative evidence. A reprint of "Nunneley on Erysipelas" was published some thirty years ago, with notes by Dr. John Bell of Philadelphia, in which he gave facts showing the intimate relationship between erysipelas and puerperal fever in numerous epidemics which prevailed extensively over the United States. During the past year a valuable monograph on erysipelas and child fever, by Dr. Thomas C. Minor of Cincinnati, Ohio, has been published, which I

had the opportunity of reading on my voyage over. The book is based on a most painstaking and laborious study of the vital statistics of the Census of the United States for 1870 and an epidemic of puerperal fever which prevailed in South-Western Ohio in 1872, and I think it is worthy of careful perusal by all who seek to influence medical opinion on the subject of puerperal fever. A careful study of these statistics does not seem to show any intimate relation between typhus fever, scarlet fever, pyæmia, septicæmia, and puerperal fever. An epidemic of scarlatina was rarely followed by an outbreak of epidemic puerperal fever, but an epidemic of erysipelas was invariably attended by an outbreak of epidemic puerperal fever. The argument that puerperal fever is not a distinct disease rests mainly on the ground that it is simply due to a septic poison. Septic poison is a term now frequently used, and often very vaguely, but those who claim that puerperal fever cannot be regarded as a distinct disease do not claim that all disease which results from the absorption of septic poison must be one and the same thing, and that this should be called septicæmia. Is there anything improbable or unphilosophical in the hypothesis that septic poison acting on the system in a peculiar state, which never occurs in the human system under any other conditions—that state so graphically described by Dr. Richardson and Dr. Farre in this discussion,—should result in a distinct disease which never occurs except when the system is in a special condition? The answer to this question is to be found in the study of the clinical phenomena and pathological anatomy of the disease. If septic poison never occurs as an epidemic (I do not say an endemic) among those who are suffering from traumatism, and is never contagious under these circumstances, and if septic poison in women after childbirth does occur as an epidemic, and is contagious and infectious, are not these two elements sufficient to warrant us in regarding this as a distinct disease? Those who believe that puerperal fever is only septicæmia have seen that they must accept this issue, and have been driven to deny that puerperal fever ever occurs as an epidemic or that it is contagious. If in a given territory women after childbirth die in proportion to the births in numbers fiftyfold or a hundredfold greater than they have died for several years previously, or than they die for several years following, would we not in common language say that an epidemic prevailed in that district? When, in four months of the year 1873, in that part of New York which is in the best sanitary condition of any part of the city, in which the most wealthy portion of the population reside, the number of deaths from a disease—call it puerperal pyæmia, puerperal septicæmia, or puerperal fever, as you please—is twenty times greater than it had been for twenty-five years previously, and double what it is in other portions of the city in much worse sanitary condition, where the poor women are crowded together in their houses, and quadruple what it is at the same time in the lying-in hospitals of the city, are we not justified in saying that an epidemic prevailed in the city at this period? When in Cincinnati in 1872 the deaths from this disease were 122, while the annual average of deaths from this cause for the five previous years had been 13¾, can we not properly say that an epidemic prevailed in Cincinnati at this time? In view of all the material abounding in medical literature, and such facts as these, I will not borrow a phrase from one of the speakers at the last meeting, and say that those who deny that this disease occurs as an epidemic must have minds which are not open to conviction; but I will say that they must attach a subtlety of meaning to that word "epidemic" not consonant with common sense. Please to observe that I do not use the definite article, and say "the common sense"; otherwise the phrase might be discourteous. I will now submit the three following propositions:—1. The clinical phenomena of puerperal fever are quite different from those of surgical septicæmia or surgical pyæmia. 2. These affections do occur in puerperal women, and the result is a disease which does not constitute a continued fever communicable by contagion. 3. When either of these affections complicates puerperal fever it modifies the clinical phenomena by symptoms which can be distinctly appreciated and accurately described by any careful observer. I will not give the evidence on which these propositions are based, because I think that this has been done in a work on Puerperal Disease which it would be indelicate in me to speak of in more definite terms. I will say but a few words with regard to the pathological anatomy of the disease. Dr. Richardson argued, at the first meeting of this discussion, that there are no local lesions which will permit us to say of a case in a dissecting-room, "This is a case of puerperal fever," as we would say, "This is a case of scarlet fever, or typhus or typhoid fever." I think it would be extremely difficult to prove that there are local lesions which have established the fact that scarlet fever, typhoid fever, and relapsing fever are distinct diseases. I will not illustrate this by the subject of scarlet fever, for I find that my time is fast going; but I will simply ask, Would any of the most recent authorities on the continued fevers—would Sir William Jenner, or Dr. Murchison, or Hoffman, or Lebert—insist that a disease could not be registered as typhus or as relapsing fever, except certain anatomical lesions could be demonstrated in the dissecting-room as determining this disease? All these authors agree that these diseases, which we accept as distinct diseases, have no pathognomonic anatomical lesions. The author of the address on Obstetric Medicine before the British Medical Association last year asserts that pathologists have torn in tatters the view that the disease which we are discussing is an essential fever peculiar to puerperal women, as distinct as typhus, or typhoid fever, or scarlet fever. When? Where? How? Give us the proof that any such pathologists have ever studied this disease, except in hospitals and large cities, where it is probably complicated with pyæmia and septicæmia. Of what value would be the researches of the ablest pathologists of Germany or England on questions relating to the pathology of yellow fever if such pathologists had no opportunity of studying this disease except in Germany or England? Has Spiegelberg, or Schroeder, or Schruechberg, or Mayrhofer, or Orth, or Heiberg, or Olshausen, or Fehling, or Cohnstein, or Breisky, or von Haselberg, ever studied puerperal fever as it is found in epidemics in rural districts where pyæmia and septicæmia are rarely met with? German is a difficult language to acquire, and it gives an attractive appearance of learning to introduce such names, even if nothing be quoted from them. I am familiar with their writings, and would not undervalue their researches; but so far as the elucidation of the question now under discussion is concerned, I think it of equal importance that we should carefully study, for the clinical phenomena of the disease, your English classical writers—Hulme, Leake, Kirkland, Clarke, Gordon, Hey, Armstrong, and Robert Lee. The hint on this point thrown out by Dr. Farre at the last meeting seemed to me most appropriate and timely. What progress is made in science—how do "we free ourselves from error," or gain in scientific precision or accuracy of description, in giving to this disease a new name—pyæmia, as Dr. Duncan would call it, while he confesses that it has no etymological signification in this disease, and in fact has no definite, positive meaning? What propriety is there in giving to an obstetrical disease a name significant and appropriate to a surgical disease, unless it can be demonstrated that the two diseases are identical in their clinical phenomena, and their anatomical lesion? The burden of proof to show this identity belongs to those who would call the disease puerperal septicæmia. Some think the negative has already been established. I have neither the time nor the voice to discuss the other questions which have been proposed. With my warmest thanks for your courtesy in listening to me so patiently, allow me to close with the suggestion that it may be well for all of us who discuss puerperal fever to remember the exhortation of Oliver Cromwell, when he lost patience with a Scotch Assembly, "I beseech you, brethren, by the mercies of God, conceive it possible that you may be mistaken."

Dr. WEST.—I came here to-night because I felt that honour implies duty, and having now for some years had the honour of being one of your fellows, I felt that if on the occasion of so important a discussion as this I stayed away, it would seem either as if I cared nothing about the exercise of my profession or about the furtherance of it, or as if some other motive—I know not what—had kept me away from your assembly. What I have to say I will say in as few words as possible. And first of all I have but one criticism to offer, and that bears on one of the questions which have been suggested with reference to the share that

certain microscopic organisms have, or may be supposed to have, in the production of the disease called puerperal fever. It appears to me, with all respect to the gentleman who in his able paper proposed that question, that it is somewhat out of time to raise it. We have not as yet a sufficient amount of knowledge on the subject to be able to apply it or to draw from the observations that have already been made any correct and useful inference; and no one, I think, can have read with care the very interesting discussion on the subject of the germ theory of disease without being struck by the way in which men of the greatest talent and the sincerest love of truth differ not merely with reference to the conclusions that they drew, but also with reference to the very facts that they thought they had observed. I think, Sir, if this matter is to be settled, it must be settled, in the first place, in the case of some disease simpler in its nature than puerperal fever. I pass, then, from that in these few words, in which I would wish still to convey the very high respect I feel for a kind of knowledge to which I can make no pretension, and to assure you that what I have said means no disparagement to the study carried on by means of the microscope, nor any doubt of the great results that hereafter we may arrive at from them; but I refer to it from the conviction that the question so raised is, in the case of puerperal fever at least, premature. I now approach the other and more practical questions. It may be allowed me, perhaps, to remind the Society of what I doubt not they have not forgotten—that some thirty-six years ago a physician, now taken from among us, but whose professional chair it was my honour for a short period to occupy, wrote a work on the very subject which we are now discussing, and I do not myself see that we have advanced far, if at all, beyond the conclusions which Dr. Ferguson had laid down, that the phenomena of puerperal fever depend upon a vitiated state of the fluids, and that in the condition of a woman in the puerperal state, such vitiated state of the fluids is specially apt to arise. I do not think, therefore, Sir, that we can in any way assimilate the condition of what is called puerperal fever to typhus, typhoid, or scarlet fever. The disease wants those characteristics which more or less distinctly prevail in the case of the specific fevers. It has not the same regularity of course, the same regularity of incubation, the same regularity of outbirth. It has not the same diagnostic marks which we find in the case of the specific fevers, such as the pustules which appear, even though in small number, and characterise even the slightest case of small-pox. Nor is this all; but with reference to these fevers we know further that, for the most part at any rate, they produce a disease like to themselves, and that, though with many exceptions, they have a tendency not to recur where once they have happened. Now all these characters are absent in the case of puerperal fever; while the very circumstance that a far greater proportion of cases of puerperal fever occur in primiparæ than in those who have given birth to many children shows that there is a marked connexion between the liability to an outbreak of the disease and the difficulties attendant on the process of labour. If, further, one exposes a man to the contagion of puerperal fever, he does not get any disease as the result of it. If we expose a woman in the puerperal state to the contagion of scarlet fever, measles, or some other disease, she may have that disease, even though its characters may be masked and altered in some degree by the puerperal state. But it does not necessarily follow that she will have that same disease. In the cases related by Dr. Collins, of Dublin, with reference to two epidemics of puerperal fever, the introduction of a case of typhus fever into the hospital was followed on each occasion by an outbreak of puerperal fever. So it would seem that a cause distinct from anything which we can identify as the special poison of puerperal fever may yet, by the influence which it exerts upon the woman in this peculiar condition, produce a disease not distinguishable by any of its phenomena from that assemblage of symptoms which we ordinarily call puerperal fever. It seems as if the puerperal state was the condition of the development of this set of symptoms. Moreover, we must remember that there is not one single solitary cause to which we can refer the symptoms of puerperal fever; that it occurs now from one cause and now from another. I remember at this moment the case of a lady in a state of perfect health who was delivered at a time when puerperal fever was prevalent. She was a person in that position in society in which she was shielded from every possible danger. Soon after her delivery she was exposed to a current of air and caught cold. In a short time the symptoms of puerperal fever developed themselves, of which she died. Here was a case in which there was no special morbid poison existing—nothing but what could be derived from her own fluids or brought about by some impression on the system. Moreover, we know that mental shock will have the effect of producing the symptoms of puerperal fever, leading to a fatal issue. I remember the case of a lady who progressed perfectly well after an easy labour, but owing to some violent scene of domestic strife with her husband, she was seized almost immediately with symptoms of puerperal fever, at a time when no such disease was prevalent, and of that disease she died. I think, then, we are to look for the cause of puerperal fever rather to the condition of the person after delivery than to any special poison. Poisons of various kinds may produce it. We know that in Vienna puerperal fever was exceedingly prevalent, owing, as was discovered, in a great measure to the fact that the students left the dissecting-room and went with their hands imperfectly cleansed to attend the women in their confinement; and when greater care was taken, when careful ablution and disinfectants were insisted upon, puerperal fever diminished in its frequency to a very great extent. We know that local violence may produce it; in short, we know that a great number of cases may give rise to it, and that the only one factor in the production of that class of symptoms consists in the special state of the woman after delivery. That state I need not recall. It is a state in which the fluids are laden with old, effete, and useless materials, out of which the old uterus is removed and a new one is to be built up; they are laden also with those elements out of which eventually the new secretion of milk is to be established. None of us, except those few who, like Dr. Richardson, have given great attention to these inquiries, can describe at all wherein the alteration of the blood consists; yet, without indulging in any wild theory, we may say that there is a something—people used to call it a ferment; I do not care what it is called, provided we use the name, not as defining the thing exactly, but as a name only to which we attach no other meaning than that of a something by which we are to distinguish this or that from the other, while as yet we know not its real nature. For instance, in the time of the old alchemists, calomel and corrosive sublimate, the chemical composition of which was unknown, were respectively called Draco magnus and Draco mitigatus; and if we use names as the old alchemists used theirs, we shall be much more likely to keep from the error of hasty conclusions or rash generalisations than if we use a name to which we tack a definite scientific meaning while as yet we have no sufficient grounds to rest that meaning upon. Those were the chief things which, it occurred to me, might perhaps be worth the saying. Take a woman in the puerperal state in whom is checked in any manner, whether by poison from without, by mental shock, by cold, or injury, the regular performance of those functions that ought then to go on, and you have the condition thereby produced out of which the assemblage of symptoms that we call puerperal fever—and all the world is pretty well agreed to give it that name—arises. The only other word I would utter is, to quote a saying of a great, wise, old physician, who said that the highest aim of our art must be the greatest possible generalisation of diseases and the greatest possible individualisation of our patients, so that we have in each case to look to the prevention of puerperal fever, not simply to the removing of the possibility of contagion, not simply most carefully watching the local condition of the uterus and removing from its inner surface any possible decaying matter, not simply to the taking care that the air that surrounds the patient is good, but we are bound also to consider the patient's mental state, to regard minutely her individuality, and, if we wish to put a stop to the disease, to remove from around or from within our patient anything which can interrupt those important processes the interruption of which gives rise to those symptoms which we designate by the name of puerperal fever.

Dr. SNOW BECK.—I never had so strongly the feeling that I would have been glad to escape from the position in which I may have been placed as I do this evening, after hearing the very learned and eloquent addresses with which we have

been favoured; but I feel emboldened by the sentiment with which Dr. Fordyce Barker concluded, that possibly we may yet all be mistaken, to state the conclusion to which I have been led, chiefly from my own observations, upon the nature of the diseases which at present engage our attention. These observations have led me to a conclusion directly opposed to the opinions expressed by the previous speakers, for I am unable to perceive that there is any special or specified disease connected with childbirth, or to which the term puerperal fever can be properly applied. I must be also bold enough to contend that the definition published by the Nomenclature Committee of the College of Physicians cannot be maintained in practice, for I have never yet been able to make out "a continued fever, communicable by contagion, occurring in connexion with childbirth, and often associated with extensive local lesions, especially of the uterine system," which is essentially connected or associated with the condition of the system after parturition; or, in other words, which is not met with at any other period of the woman's existence. With reference to this definition, Dr. Arthur Farre informed us that the word "communicable" was only intended to convey that it might be communicated, but that it might also have a spontaneous origin, and the word "often" was only to call attention to the frequency with which these complications arise. Dr. Farre added that the Nomenclature Committee were entirely at a loss where the term puerperal fever ought to come in the catalogue of diseases. It was not placed among the fevers at all, but amongst the general diseases far away from the fevers, finding a place of refuge at last at the bottom of the list, after pyæmia, erysipelas, &c. But why should the Nomenclature Committee be in any such difficulty if there really existed any continued fever, communicable by contagion, specially connected with childbirth? Whilst admitting this difficulty, however, Dr. Farre said he was not prepared to admit there was no such disease as puerperal fever; he should be sorry to shut out the idea as one that is impracticable, and not to be entertained. If we are to look for a puerperal fever at all—one that can be properly so called, a disease which is *sui generis*,—we shall probably find it in the interruption to those healthy processes going on in the lying-in woman: first, the milk process, the milk secretion, and that attendant disturbance of the constitution which we term milk fever; and, secondly, a much more important one, the change which goes on in the uterus, and which we all know as the involution process. "Now we know," continued Dr. Farre, "that when this process is interrupted there is an arrest of all the eliminative action which the involution process implies; and we may fairly conclude that in consequence of this arrest there is some accumulation in the body of those effete matters which ought to be expelled from the system, and this, added to the existing blood dyscrasia, must very much aggravate the disease." But may it not be replied that this sounds very like admitting that up to the present time no such special or *sui generis* disease has been recognised? If such a disease be developed in the changes which take place after the birth of the child, why has it not been found and described during the years of diligent study which so many of our most able and acute physicians have devoted to the elucidation of these diseases? and why is it that we have got no further than the unsatisfactory statement, that if we are to look for a puerperal fever at all we may probably find it in some arrest of these healthy processes? What proof, it may be asked, is there that in the serious and fatal diseases following childbirth there is any interruption of those healthy processes which go on in the lying-in woman—any arrest of this assumed eliminative action? Supposing, however, for a moment that such an interruption or arrest should take place, what proof is there that this arrestment would create in the system so serious a disease—a disease *sui generis*, and capable of being communicated by contagion? It must not be forgotten that the growth of the uterus is a healthy physiological process, that the tissues which are formed are perfectly healthy tissues. When and where have there been any facts observed which justify, or even countenance, the supposition that the retention in the system of any portion of a healthy tissue will generate such a disease that the majority of the women in whom it becomes developed will die? I am not aware of any facts upon which the least reliance can be placed which justify the inference that such a disease-creating action is even probable; and I must add that, instead of speaking of it as possible or probable that such a *sui generis* disease would be found if looked for, would it not have been more satisfactory, and certainly more conclusive, if the symptoms which would indicate such a disease during life had been given, or the appearances in the dead body described, by which its previous existence might be affirmed. So far as my knowledge extends, no reliable facts have ever been recorded which show that any such *sui generis* disease has been observed in practice, nor can I think that anything is gained by substituting the term post-partum fevers for that of forms or varieties of puerperal fever, for these terms are evidently intended to denote the same class of morbid phenomena, whatever their nature may be. In further considering these questions, I must contend that the process of childbearing is a natural function in the female, and that nature has provided her with all the powers requisite for the complete performance of this function as a part of her natural endowments. Every day's experience appears to exemplify this fact, not only in the human female, but also in the female of all other animals; yet, on the other hand, no one doubts that the peculiarities of the system after parturition modify to a certain extent any disease which may have existed previous to the confinement, or which may have commenced subsequently. But I am not aware of any observations which support the notion that there is anything in these conditions which, in a healthy female, is the source or element of disease, or which in any way can alter, or has altered, the essential nature of any disease with which she may be attacked. All women, however, are not in health when they become pregnant, and consequently are not in health at the birth of the child; and many women are not endowed by nature with the constitution and formation favourable to the propagation of their species. Women in either of these categories must necessarily suffer from different diseases, and from various causes, after parturition; but the fault is here with the individual, and not with the natural and physiological process of procreation. But if it be true, as I believe it is, that there is not any disease specially connected with childbirth, it must not be forgotten that the converse is equally true, that there is not any disease from which the lying-in woman is exempt; in other words, that the condition of the system induced by pregnancy, or that which follows after parturition, does not prevent the existence of any other disease which may attend the female at any other period of her existence. Hence we must be prepared to meet with, in the lying-in woman, any of the diseases which flesh is heir to, and the diseases so met with become naturally divided into two classes—one class arising from the general system, and being the result of changes and accidents to which all women are liable at any period of their existence; the other class arising from the uterine system, and being the consequence of accidents incident to pregnancy or childbirth, yet not comprising any disease specially connected with either of these states. When speaking of these diseases, Dr. Farre observed that he had been in the habit of dividing what he termed post-partum fevers into three classes. First, those irritative fevers arising from some local irritation, and not implying blood infection of any kind, pyrexial states of a fugitive and transient nature, resulting from simple mammary irritation, slight injuries to the soft parts, laceration, and the like. Second, under the name of the milder forms of infective fevers would be classed all those in which the infection is not of a specified nature, in which the process does not undergo a period of evolution, a period of development, and in which the consequences follow no definite order. Thirdly, the eruptive fevers, and those which depend upon a blood infection, the poison following a specific course, having a regular period of incubation, and terminating in those several diseases, eruptive fevers, and the like, which occur of course in the lying-in woman in common with others. In glancing at the different diseases met with after childbirth, it may be well to do so under these heads. First, then, it would appear evident that those pyrexial states of a fugitive or transient nature, which are met with in almost every woman who has been confined, cannot be classed as belonging to the same category as those serious and often fatal diseases which follow parturition or abortion. We might as well include all the diseases in the nomenclature of diseases, for every one of these might, by possibility, be

met with in a woman recently confined; yet it is singular how often these trifling and transient affections have been considered as the commencement or form of serious disease. Dr. R. Ferguson, in his admirable essay on Puerperal Fever, wherein he correctly attributes the most serious diseases to a vitiation of fluids, though the nature and source of this vitiation are not so clearly stated as perhaps they might have been, remarks (p. 101) that a dose of salts-and-senna so invariably brought on metro-peritonitis that he forebore the use of this drastic irritant as a routine dose; also (p. 16) that during a reputed epidemic of the peritoneal form, after two doses of Dover's powder of ten grains each the patients did not require any other treatment. Secondly, it is well known that the lying-in woman is often exposed to, and not unfrequently attacked with, the eruptive fevers or acute specific diseases. I believe that every one of these diseases has been met with at one time or another, and we cannot deny the proofs that they have been communicated by the nurse in attendance, and possibly, though very rarely, by the medical attendant. We all know that these diseases exercise a great influence, though in different degrees, upon the pregnant uterus. The rules under which women are received into the different lying-in hospitals when the pains of labour have commenced, and often during the night, give great facilities for the introduction of these diseases. Various instances are recorded where typhus and other fevers have been so introduced into lying-in hospitals, and have spread from patient to patient, constituting a so-called epidemic. It is recorded that on one of these occasions, after the introduction of a case of typhus fever into the Dublin Lying-in Hospital, "puerperal fever appeared in forty-eight hours afterwards, although the hospital had been free from it for a year before." But the disease which thus became developed was no doubt typhus fever, for evidence is entirely wanting to show that any of these infective or acute specific diseases have ever been known to change their nature. Some of the symptoms usually characteristic of these diseases may have been masked, or possibly absent, in some instances, but their specific nature has in no way changed. I cannot place any confidence in the statement that all these infective fevers "are excessively prone, if brought near the lying-in woman, to originate puerperal fever"; or that, by some wonderful and potent influence in a woman recently confined, all these different specific diseases are transformed into one and the same disease. Dr. Braxton Hicks appears to draw some subtle, and to me incomprehensible, distinction between puerperal diseases and puerperal fevers, and has carried this transmutation of diseases even further than those who have preceded him. He imagines that a disease not only changes its nature when it enters the system of a woman recently confined, but when it again leaves her system and enters into that of another—to quote his own words—"it becomes reconverted into the zymotic form whence it had sprung." The experience, however, which has been adduced by the different fellows during this discussion appears conclusive that these eruptive fevers do not become changed in any respect when developed in a woman recently confined; and I feel assured that Dr. Arthur Farre correctly stated the fact when he said, "I do not consider these diseases as in any way taking any part in the puerperal fever." Nor is there any evidence, such as in a scientific point we have a right to require, that the same cause can produce directly different results in different individuals—such, for example, as that mentioned by Dr. Playfair, where the same cause, included under the very vague term of "unhygienic condition" of the house, is said to have produced diphtheria in the husband and puerperal fever in the wife. I must admit to having a mind "not open to conviction" by such tales, where the effects supposed to have been produced are contrary to everything that has been observed in the course of nature or in disease, and where the statements rest only on the imagination of the narrator, unsupported by sufficient facts. Thirdly, all these diseases of the general system which have been adverted to are of minor importance, as only a small minority of them prove fatal. They evidently do not constitute that serious class of diseases which come on so insidiously, continue gradually from bad to worse, and so frequently end in death, that, as Dr. William Hunter said, "treat them in what way you will, at least three out of every four will die." These diseases, which have invested the term "puerperal fever" with such fearful significance, arise from the uterine system, and are included in Dr. Farre's second class, though I feel assured he has erred in supposing they are "infective fevers," or can be termed "the milder forms of infective fevers." They really constitute the serious, and too often fatal, diseases which are met with after childbirth. Let me sketch a case as illustrative of the class of diseases referred to. A healthy woman, after a natural confinement, with or without hæmorrhage, remains very well for two or three days, then has a rigor, which is followed by a very frequent and feeble pulse, a feeling of great prostration and sinking, some pain across the lower part of the abdomen, with considerable tenderness when pressed, gradual swelling of the abdomen and tympanitic resonance, considerable thirst, some sickness, with loose, offensive motions. Gradually the patient becomes weaker and weaker; some shortness of breath, with slight cough and expectoration, is noticed; and she sinks after two, or it may be three, weeks without more marked symptoms. After death the peritoneal cavity contains more or less turbid serum; some soft, friable lymph is deposited on the peritoneal surface, particularly in the pelvis, with more or less injection of the peritoneum or the omentum. The uterus is large; when cut into, the tissues are healthy, the inner surface covered by a muco-purulent, somewhat reddish secretion; more or less pus-like fluid is found in the uterine sinuses, which are pervious throughout to fluid injected into the pelvic veins. What is the origin and nature of an illness such as this? A great variety of names have been applied to this condition, according to the view which authors have taken of its nature. It has been called peritonitis, puerperal peritonitis, peritoneal inflammation, metro-peritonitis, &c., under the belief that the effusion of turbid serum in the peritoneal cavity, the deposit of soft, friable lymph on the surface, and some injection of or under the peritoneum, were unquestionable signs of previous inflammatory action. But these morbid signs differ much from the appearances of undoubted inflammation of the peritoneum, and are now recognised as exudations which result from the impregnation of the general circulation with some noxious fluid or material. It has been termed phlebitis, uterine phlebitis, suppurative phlebitis, in consequence of the pus-like fluid found in the uterine sinuses being considered unquestionable evidence of the previous existence of inflammation in these canals. Dr. Robert Lee has recorded several similar cases under the name of uterine phlebitis, and has described the pus-like fluid as suppuration resulting from previous inflammation; but it is extremely doubtful whether inflammation can ever take place in the uterine sinuses. These canals are only channels formed in the contractile tissue itself, and lined by a delicate and apparently non-vascular membrane. It cannot be supposed that inflammation could occur in this delicate membrane; and if it occurred in the adjoining tissue it would be inflammation of the contractile tissue of the uterus itself. There has been considerable difference of opinion expressed as to whether the pus-like fluid found in these canals was the result of inflammatory action, or had been taken up from without through the open orifices of these vessels at the inner surface of the uterus. But this question has been definitely decided by the injection of the perchloride of iron into the gravid uterus to arrest post-partum hæmorrhage. Where death has followed in these cases the uterine sinuses have been found gorged with black grumous fluid containing an abundance of iron, and as this iron could not be formed by any secretion from these canals, it follows that it must have been taken up from the inner surface of the uterus where it had been deposited after injection. Cases similar to the one sketched have also been described as puerperal fever, the typhoid form of puerperal fever, low typhoid pneumonia, typhus, &c., when the symptoms presented during life have alone been taken into consideration. They have also been termed pyæmia, septicæmia, ichoræmia, &c., from the symptoms and course of the illness being evidently similar to those which follow the introduction of noxious fluids into the general circulation. It is to be regretted that so much confusion has been introduced respecting the meaning of these terms; but so far as the present subject is concerned, it does not appear to be of much consequence which term is employed. Mr. Spencer Wells, in the opening address, says: "Supposing that the blood in the uterine veins clots, softens, breaks up,

is the seat of chemical and vital changes, is detained in or near the pelvis, or is carried away to distant parts, or alters the composition and properties of all the blood in the body; that we have purulent infection or pyæmia, putrid infection or septicæmia; can all this arise in a healthy woman placed in favourable conditions if she be not exposed to some morbid poison?" Now the first thing essential to such changes must be the presence of clots in the uterine veins or sinuses, and as these clots have never yet been shown to exist, it is difficult to see how they could be the cause of so much that is supposed to follow. I am aware much has been said respecting the formation of clots in the uterine sinuses after parturition, and that these clots mainly contribute, in many cases, in arresting any escape of blood; but I am also aware that the blood during hæmorrhage does not come from these sinuses, that it is not a venous hæmorrhage by retrogression, and that these clots, about which so much has been said and repeated, have never been shown to be present in the canals themselves. Much, I am also aware, has been echoed from one writer to another, as to the influence of hæmorrhage in predisposing the system to those conditions known as pyæmia or septicæmia; but the only relation between uterine hæmorrhage and septicæmia is one of sequence of events. Want of contraction of the uterine tissues allows the blood to escape from the utero-placental arteries; the same want of contraction leaves the canals of the sinuses pervious, allows noxious fluids to be taken up through their open orifices, and to be conveyed into the general circulation. These facts appear to be the answer to Mr. Spencer Wells's question, Can all the consequences which he has depicted arise in a healthy woman, placed in favourable conditions, if she be not exposed to some morbid poison? There cannot be a doubt that they can arise, have arisen, and will again arise under the conditions named; indeed, it has always appeared to me one of the extraordinary circumstances in relation to this subject that such questions should ever have been entertained, for everyone knows that isolated cases of the most serious affections, ending in the death of the individual, every now and then occur in all parts of the country as well as in large towns, with ladies in good health, placed in the most favourable conditions and surrounded by every care and attention that art can devise. If the succession of these cases occurring year after year be not sufficient to answer this question, I know not what evidence can be required. The same succession of cases appears to be an undeniable answer to the supposed influence of a vitiated atmosphere, of overcrowding in any institution, or the supposed benefits to be derived from cottage hospital isolation, &c. All that is required for the production of these serious conditions of the system is a means by which these noxious fluids can be readily conveyed into the general circulation, and this means exists when the uterus remains imperfectly contracted, or afterwards becomes partially relaxed, so that the canals of the uterine sinuses continue pervious, and any fluids formed at the inner surface, or which may have been injected into the uterine cavity, may enter at the open orifices of these canals, and be conveyed into the general circulation. This want of contraction, or subsequent relaxation, which practically is the same thing, may occur in the most healthy individual, living in the most healthy situation, and separated from actual or supposed injurious influences, whilst the simple means to avoid the whole of these evil consequences consists in procuring and maintaining such an amount of contraction as will render these canals impervious and prevent the passage of any fluids along them. When the want of contraction or the subsequent relaxation is considerable, a portion of the placenta is often retained, or coagula form in the cavity of the body from the blood which has flowed from the pervious arteries. In these cases the sinuses also remain patent, and the usual noxious fluids—rendered more injurious by the decomposition of the retained placenta or coagula—are taken up in larger quantity, when the symptoms become more marked and the course more quickly fatal. Whilst dwelling upon this cause of the serious condition of the general system, arising from the uterine organs after parturition or abortion, and which I am under the impression has been much overlooked, I do not wish to infer that it is the only cause, or that other causes may not induce similar results. Severe laceration of any of the parts concerned in childbirth, followed by inflammation—inflammation arising from long-continued pressure of the head forced into the pelvis,—the formation of abscesses in the cellular tissue outside the vagina or in the pelvis, and other accidents, may, any of them, produce the condition of septicæmia; but, except in rare and exceptional cases, I cannot think that slight lacerations are followed by such serious consequences as have been attributed to them. Laceration of the perineum may exist at the same time as want of contraction in the uterus, but it is the want of contraction in the uterus which admits the septicæmic condition of the system to be induced, not the laceration of the perineum. Once the way is opened to the system being impregnated with noxious fluids or materials, the effect which is produced greatly depends—(1) upon the nature of the fluids introduced, some being followed by no perceptible influence, others by serious and fatal consequences; (2) upon the amount, as in the experiments upon animals—a small amount producing disturbances from which the animal recovers, whilst a large amount always causes death; (3) the state of health of the individual at the time of impregnation—for what to one appears a poisonous dose, to another causes only general disturbance; (4) the continual renewal of the infecting matters. As Cruveilhier observed, the chief cause of the fatal result was that the purulent infection was incessantly renewed from the original source. Moreover, purulent infections have not the same decided course of action as the poisons, whatever these may be, which originate any of the infective fevers or acute specific diseases. And when we take into consideration the serious factors of disease which have been glanced at, combining together in very varying proportions in women recently confined, it is not difficult to perceive that we may often meet with combinations which puzzle our powers of diagnosis, and render it impossible for us to determine the exact nature of the illness. But because we are unable to unravel some of these puzzles, or to determine the precise nature of any complicated or obscure illness, is that any reason why we should rush into the regions of romance, or by concocting some high-sounding word or words imagine we have solved a substantial difficulty, or have explained a pathological entity? The question of contagion has been made the starting-point from which many have endeavoured to maintain the existence of a special and essential disease occurring in connexion with childbirth; but it would be impossible to enter upon this question at present. Some of the acute specific diseases, after being conveyed into the lying-in hospitals, have spread from patient to patient, and have thus been mistaken for an apparent epidemic; but the reliable evidence is not sufficient to show that any other disease than these infective fevers or acute specific diseases has been propagated, either epidemically or by contagion. Most if not all of the recorded histories on this point appear to admit of another explanation, and many to have their foundation in the management of the woman during the period of parturition, or in the circumstance that some minute yet essential particulars in the history of each case have been overlooked in the course of the illness. To quote the words of Dr. Fleetwood Churchill, "I rather think these [accounts] prove too much, for *post hoc* is not always *propter hoc*"; and, so far as bacteria are concerned, these bodies, we are told, are found in the interior of the organs in every dead body, from whatever cause the death may have arisen, their development being only a question of time and temperature.

Dr. W. T. GREENE.—Assuming that the object of the present discussion is to clear up what has hitherto been confused and doubtful in post-partum pathology and therapeutics by a comparison of the records of individual experience, and not to establish any particular theory, I trust I may not be thought too presumptuous for desiring to bring before you and the Society the result of some ten years' observations extending over nearly two thousand cases, of which a proportion of about 10 per cent. suffered in a greater or lesser degree from one or other of the various affections to which parturient women are peculiarly liable, and which have so frequently been confounded together under the general name of puerperal fever—a disease of which I had for some time doubted the existence, but which I am now satisfied has yet to be differentiated as a malady *per se*. So far from post-partum febrile affections being identical, I have observed that they invariably assume one of three distinct forms, differing essentially in their origin, progress, duration, and gravity; in other words, the exciting cause may be local and transitory, local and persistent, or altogether extraneous. In the first

two forms the disease may be, and often is, autogenetic, but in the third this is necessarily impossible. Firstly, very alarming symptoms may be excited by the presence of a decomposing clot in the uterus or even in the vagina, or by an overloaded state of the bowels, but yield rapidly to an aperient or the use of the syringe; and I may be permitted to observe it is unpardonable in an accoucheur who fails to have recourse to such simple remedial measures on, or even before, the first appearance of the enemy. Some time since one of my patients on the fourth day after a comfortable delivery had rigors, and when I saw her had a pinched, suffering expression of countenance, considerable abdominal tenderness, suppression of the lochia, recession of the mammary secretion, high temperature (104°), rapid pulse (130), and in fact all the symptoms of so-called puerperal fever; but she also, as I was informed by the nurse, had begun to suffer from diarrhœa, which, on investigation, turned out to be the ineffectual efforts of nature to relieve the loaded intestines. I at once washed out the vagina, as there was rather more odour present than was usual, with a diluted solution of chloride of lime, my favourite antiseptic, and ordered five grains of calomel. Next morning, though informed by the nurse that she was weak and sinking, I found my patient wonderfully improved in every respect, but very angry with me because the powder I had prescribed had, as she said, purged her instead of stopping her diarrhœa, which, however, had then ceased to be troublesome. I ordered nourishment and a due proportion of stimulants, and she made an excellent recovery; whereas had I acceded to her wishes and checked, instead of promoted, the alvine discharge, she would, in all probability, have died; for I have, I believe, in one or two instances seen a patient lost because the attendant had an unreasonable dread of cathartics. Secondly, a foul, ill-ventilated, crowded, or over-heated room, by promoting putrefaction of the lochial discharges, will often give rise to septicæmia, and, unless the cause can be removed, to death, which the most earnest efforts on the part of the medical attendant will, in such a case be utterly powerless to obviate; or hysteritis, rapidly involving the adjacent parts, may result from injury to the uterus, by long-continued pressure of the fœtal head in tedious labours, by the unskilful or incautious use of instruments, or by the well-meant but frightfully injudicious attempts of the accoucheur to pass the swollen lips of the os uteri above the head of the child during the continuance of a pain—a very common practice, and often, I am convinced, productive of extremely disastrous consequences. A primipara, aged thirty-three, who had suffered a good deal throughout her pregnancy from sickness and general debility, was delivered naturally after a favourable labour of a healthy living child, and progressed fairly for the first couple of days. She was nursed by her mother-in-law, who persisted in keeping the room at stove heat. On the third day the patient had rigors, and severe symptoms soon set in, but subsided on the arrival of a more intelligent nurse. Unfortunately this person was soon called away; the mother-in-law became once more in the ascendant, stove heat was renewed, all my orders disregarded, and the patient died on the tenth day after her confinement, with every symptom of blood-poisoning. I might multiply instances, but *cui bono? Ab uno disce omnes.* In every such case—that is, ending in the death of the patient—I have no doubt (and this constitutes the essential difference between what I may call the first and second forms of post-partum febrile affections) careful inquiry would elicit the fact that the woman's health had been for some time in a more or less unsatisfactory condition, and to that cause, rather than to any accidental lesion, the unfavourable ending of the case must be ascribed; just as we not unfrequently find in the other sex, where the health has not been all that could have been desired, the most trivial injuries giving rise to septicæmia and death; otherwise nine-tenths of all women must sink after their confinements. In the third form, if I may so term it, of post-partum fevers, which comprises at least six-eighths of all cases, the contagion is conveyed to the patient from without, in shape of the germs of one or other of the zymotic class of diseases, by the medium of some one—doctor, nurse, or friend—recently in attendance on a person suffering from the same complaint; and of this fact I have had positive proof, although the possibility of its occurrence has been denied, and it has been even attempted to be proved that because some women resist the contagion none can suffer by it—a mode of reasoning, however, undeserving of further notice. Of all the exanthemata, scarlatina, in my experience, most frequently attacks the parturient female, and though giving rise to very alarming symptoms, is happily rarely fatal. Some years ago, during the earlier part of my professional career, I was attending a lad with scarlatina anginosa of a severe type, and at the same time nearly all my puerperal cases exhibited febrile symptoms and had more or less sore-throat, although the characteristic rash did not in every instance make its appearance. Several of the children sickened as the mothers were recovering, and exhibited every feature of scarlet fever. Fortunately none of them—parents or children—died, but I received a lesson I shall not soon forget. Since then, at different times, I have met with other similar cases, and have always been able to trace the contagion to its source. Post-partum small-pox I have met with in two instances where the preliminary symptoms were identical with those usually ascribed to puerperal fever. In both of these the patients recovered. Of post-partum measles I have had no experience, but I have met with several cases of erysipelas occurring in recently-confined women, who all succumbed to the disease. In one of these cases I was able positively to trace the disorder to its source. The nurse had come straight from the bedside of a man suffering from phlegmonous erysipelas, of which he afterwards died, to attend upon my unfortunate patient, in the raw placental surface of whose womb the insidious disease found too ready a nidus, and thence spread rapidly to all the adjacent parts, terminating fatally on the tenth day after the poor woman's confinement. The infant also died of the same complaint, thus confirming the diagnosis in the mother's case. I have had one case of post-partum typhoid fever, occurring soon after delivery in consequence of the patient inhaling the noxious emanations of a drain under the window of the breakfast-room in which she had been confined. After a hard struggle for her life this woman recovered, but her infant died with every symptom of typhoid fever. If it be asked why scarlet fever &c. assume so formidable a character in parturient women, I reply that in them the absorbents are in the highest state of activity, and the poison in consequence is conveyed with extreme rapidity to all parts of the system, and produces a correspondingly grave effect. With regard to the animalculæ which by some are supposed to play so important and destructive a part in septicæmia generally, and notably in the case of parturient women, and by others to be a delusion and a snare, I cannot boast of any great experience, but I can imagine that their presence within the body would have a tendency to cause increased irritation, just as maggots in an open wound would certainly retard if not prevent its closing. Hence the value of antiseptic lotions, especially the chlorides, which are fatal to bacteria and their congeners. To sum up, there is no such disorder as puerperal fever, and therefore the erasure of the term from the nomenclature of diseases is very urgently demanded, as utterly misleading, and in lieu thereof might be advantageously substituted the name of the complaint from which the patient had suffered, with the qualifying epithet "post-partum," thus:—Post-partum septicæmia, post-partum scarlatina, erysipelas, &c.; and a little care in analysing the symptoms and the history of each case would almost always render the diagnosis absolutely certain.

Dr. ROUTH.—I am anxious to make a few remarks in this discussion, since in early life it occurred to me to have seen perhaps a greater number of cases than any person in this room, having been present during part of that terrible epidemic which took place in 1846 and part of 1847 at the Vienna Hospital. During the first of those years 456 women died of the disease, and in the second 176. The greater number of those cases I saw, and therefore I had an opportunity of studying the disease very closely. On my return to England I published a paper, which is extant, and is probably known to many members present, therefore I shall only refer to it, in which I showed that the disease was communicated directly by inoculation from the hands of the medical students who came from the Coroner's Court, and, satisfying themselves with simply washing their hands in a little water, made examinations of women about to be delivered. One point in regard to the disease was clearly brought out

—namely, that it was not contagious from one person to another. That fact I took a great deal of trouble to find out, and I think it was proved in the most satisfactory manner that the disease was not communicable from one person to another, except the discharges were in some manner communicated, or except in the case of examinations made by the students under the circumstances I have mentioned. Many of the nurses and midwives who attended those patients were married women, and many of them had children, but not one of those women caught the disease. In the division where the labours were attended by women who had nothing to do with dead bodies, the disease did not exist, or if it existed at all the cases were so few and far between that there was no belief that it could be produced in any way by the attendants. And after the plan had been adopted of compelling every student to wash his hands in a solution of chloride of lime before he attended a midwifery case, the mortality in the first division, where about 3500 women were annually confined, diminished exactly to the same figure as in the second division, where a similar number of women were attended by midwives only. Well, that disease I showed from the evidence was not contagious from one person to another. That is exactly what is true of surgical fever. We all know that very often we communicate a disease to a lying-in woman if we come from a case with our fingers contaminated by some discharge. The records of medicine abound in cases of the sort. The cases published by Dr. Storr some years ago in the Transactions of the Provincial Medical Association showed how often the disease was produced in that way. Therefore I say it is clear from the evidence at Vienna upon a large scale, and from what I have seen and read upon a smaller scale in my own practice and that of others, that one variety of puerperal fever can be and often is communicated by direct inoculation of the practitioner. In the case of the fever at Vienna the children died generally a little before the mothers, and in all those cases it was found that peritonitis existed in the child. In Dr. Storr's cases it was found that many of the husbands of these women contracted peritonitis; and we have heard to-night of some cases in which the disease communicated was erysipelas. Therefore we must admit that under certain circumstances there is some contamination that takes place between parties coming in close contact, probably analogous to that which takes place with typhoid fever, which may be said to be communicated by discharges or by the powerful odour emanating from the patient. No man can read all the literature upon the subject, I think, without being convinced that there in another variety of puerperal fever which is eminently contagious. Whether it be communicated from erysipelas direct, or from typhoid, or from any of these diseases, it is communicable from woman to woman, even from woman to man. There is, I think, a point in which we have not made a clear distinction. There is indubitably a peculiar point in the contagion of several different fevers at which, when it attacks a lying-in woman, will develop in her a particular disease, call it puerperal fever, or call it a modification of the disease which originally infected her, but which, applied to another woman, would extend, and thus produce an epidemic. If we look at that question on a broad basis, we must come to the conclusion that some cases are not contagious and some are, and that those that are contagious are communicated by infection from other cases.

Dr. GREENE.—I may mention a fact which I omitted to state, that a midwife, whose son was suffering from erysipelas, communicated puerperal fever, or some febrile affection, which undoubtedly was erysipelas, to a number of her patients, many of whom died. That occurred recently.

Mr. WALLACE.—I am pleased to hear what Dr. Routh has said about the contagiousness or non-contagiousness of some cases of puerperal fever. Up to last October I was in the happy position of having attended over two thousand cases without having lost a woman from any disease whatever; like some of those gentlemen who write to the papers and say they have attended so many cases without a single death, and therefore think they are never to have one. However, my turn came at last. My *locum tenens* attended a primipara on October 5th. The house was in a bad hygienic condition, the rooms being ill-ventilated and most offensive, and the drains smelling. The woman died after six days of what I should call typhoid fever modified by the puerperal condition. The most singular part of the case was this. I should explain that I came back from the country the very night the woman was confined, and I attended her afterwards myself. During the first two days after my return I attended four women in their confinement, and they all did badly; none of them died, but they were all more or less ill for some time, and two or three of them barely escaped with their lives, so much so that I was compelled to give up midwifery practice for three weeks, when my trouble ceased. About two months afterwards a medical friend of mine attended a case for me, in which the woman died after five days of metro-peritonitis. While this woman was ill I attended several cases, and they none of them exhibited any bad symptoms whatever. I continued to attend midwifery cases, and all my cases did well; but after two months there was another case where the woman died. I may mention that in the second case the woman had a dead child, and there was decomposition of a portion of the placenta. What I wish especially to say is, that what would be called the pyæmic cases were non-contagious. I may also state that during 1870 in my neighbourhood there was an epidemic of scarlet fever. I had many cases to attend, and I also had a good deal of midwifery, but none of the women were taken ill. On several occasions children with the rash out were in bed with the mothers when they were confined. The same has been the case with measles. During the epidemic of small-pox which occurred in my neighbourhood in the East-end of London in 1871 those puerperal women who took small-pox had small-pox simply, not at all modified by the puerperal condition.

Dr. GRIFFITHS.—In the discussions which have preceded to-night's there seems to be some discrepancy as regards the relation of scarlet to the so-called puerperal fever, which, with the greatest diffidence, I submit may be explained in the following way:—Some gentlemen have seen and described true scarlet fever running the regular course, the subject of it happening, in the chapter of accidents, as it might be said, to be the lying-in woman in whom that fever which we know by the name of puerperal fever was not induced. Other gentlemen have seen after labour symptoms which they have considered scarlatina, but which really do not constitute that affection, being simply the outward and visible signs of the inward autogenetic poison of which—as, indeed, the word "autogenetic" implies—the woman is herself the factor and subsequently the recipient—recipient not alone because the poison generated in utero lies in or is received by the uterus, but because it is received into the lymphatics, the veins, the peritoneum, and into the body generally, as described by Dr. Tilt in his paper on lymphangitis in Pelvic Pathology, in the 16th volume of our Transactions, and alluded to by him in his recent speech. With the train of symptoms to which I refer, and which has been termed scarlet fever, who practising obstetrics has not had experience of it in cases of what, for the sake of distinction, we must term puerperal fever? But, Sir, is it scarlet fever at all, at least that form contracted from another affected with the ailment, and which in the usually accepted meaning of the name constitutes the true disease? The conditions alluded to, and which are identical with scarlatina, nay more, are in some instances, perhaps, the same, are the result of pyrexial action, the indication of latent mischief, and have their origin not from scarlet fever contagion—that is, from a scarlatina-infected person, the woman never having been exposed to the scarlatina virus,—but from the presence of some putrid or offending matter in uterus or vagina. The sickness, the headache, the hot pungent skin, the sore-throat and rash, congested eyeballs, the jaundice, the delirium, the oppressed heart and breathing, and, later, the diarrhœa; these are not scarlatina, in the usually accepted sense of the word, but a group of symptoms pointing to the toxæmic condition of blood dependent not upon the entrance of a specific virus, but simply of the noxious elements resulting from putrescent animal matter—are, in fact, the sequelæ and manifestations of the blood-poisoning which occasions what is termed puerperal fever, and which, if not checked or corrected, would immediately end fatally. In a scarlet fever epidemic, such happening to a lying-in patient would be set down to the scarlet fever poison; but I have seen them where no scarlet fever at all existed, and where no exposure to it had taken place. Those gentlemen who have seen scarlet fever attacking the lying-in, and running its usual

course, well-defined, without inducing any form of puerperal fever, would do good by relating whether the lochia were offensive before the scarlatina set in, or at any time during its progress. If not before the invasion of the fever, then I say the case is one of true scarlet fever; but if the discharge become offensive only in the course of the scarlet fever, I would submit that the fever poison, perverting, as we all know it does, the entire blood, has vitiated, and it may be even rendered putrescent, the outcome of the blood—I mean the lochia; the relation of the scarlet fever being to the offensive discharge as cause to effect, the reverse of that which obtained when the symptoms exist which I have demonstrated as being those of so-called puerperal fever, and to which we might apply the term bastard, or simulating scarlet fever. Those gentlemen who hold that scarlatina is a great agent in producing puerperal fever would do well to tell us whether the scarlet fever symptoms came on before labour. If not, on what day after delivery? They should also state whether the lochia were fetid. If they were, how many days previous to the scarlet fever symptoms had they been so? I am led to the conclusions I offer by a case of autogenetic poisoning at this moment under my care, in which most, if not, indeed, all the symptoms of scarlatina obtained, but which, recognising to be wholly the consequence of a morbid condition of the uterine system and its excretions, the lochia, I attacked by imitating the eliminative action of involution, grasping the soft, spongy, uncontracted uterus with my hands, compressing it and expelling some clots, washing out the putrid or putrescent discharges of the womb and vagina by means of Higginson's syringe, Condy's fluid and warm water being used every two hours till the lochia became quite inodorous. Had I, however, seen the patient for the first time when those apparently scarlatinal symptoms were well developed, I might have erred in supposing I had a case of scarlet fever to deal with, have treated it as such, and lost my patient; but being alive to the puerperal facts to which I have drawn attention, I at once proceeded as I have described, and the correctness of the diagnosis was evinced by the immediate improvement in my patient, commencing as it did from the very time I got rid of the offensive clots and washed away the foul lochia. All the group of evils in this case might be termed scarlet fever, yet all at once disappearing under the defouling treatment named showed incontestably that the diagnosis was correct. Moreover, since her recovery I have made inquiries, and find no exposure to scarlet fever nor any presence of it in the town. One difference I noticed: there was no desquamation of the skin, although I should not have been surprised had such taken place, so high did the temperature run. I admit—as Dr. Savage, I think, said—there may be cases of septicæmia running to a rapidly fatal issue without any of the pyrexial disturbances I have named, or even any elevation of temperature from first to last; but that is where the patient is stricken down and overwhelmed by the dose of poison, or where the febrile symptoms occur in our absence, and hence may escape the observation of even the astutest. The same remarks will hold good of the rash as adduced by Dr. B. Hicks. I am led up to these conclusions because lately my mind has been exercised upon what I consider to be a fact—namely, that scarlet fever and typhoid may originate in the same way, from the same infecting source of poison developed in different persons or in the same persons at different times and under different circumstances; the poison at one time, determining to the lymphatics and glandular systems, producing what we know as scarlet fever, at another time determining with greater virulence to the intestines, particularly Peyer's patches, as in typhoid fever. In this—although I had arrived at my goal without knowing the way to it had been trodden before me—I find I am borne out by the previous researches of Dr. John Harley, which he published in a pamphlet he has had the kindness to send me since I commenced my investigations, also by the researches of Dr. Tilt, made known to us in his paper on Lymphangitis in "Pelvic Pathology," by Dr. Tilt's speech, by the speeches of those who have preceded him, and by my own at present somewhat crude experience, which I value very slightly indeed till I verify and check it by further careful inquiry. Bearing in mind, therefore, the life symptoms which exist in scarlet fever, puerperal fever, and typhoid, also the pathological conditions found after death, and how closely allied they are—nay, more, how much alike in a number of instances,—we can see how readily the first—that is, scarlet fever—can run into the second, puerperal fever; the second into the third; how typhoid came to be supposed to originate puerperal fever (Sir Henry Marsh's opinion, as quoted by Dr. Squire); and how true so-called puerperal fever may clothe itself in the garments of scarlet fever, so that only with difficulty it can be distinguished.

Mr. SPENCER WELLS.—The great difficulty I have in replying to-night in the few minutes that remain before the end of the discussion, consists principally in the great number of speeches that have been made, and the extremely numerous and important topics which have been suggested by different speakers. But I think I may congratulate the Society upon the very great importance of the discussion that has been carried on, and upon the very great ability which has been shown by a great number of gentlemen who have addressed us, and by none more so than by our friend from the other side of the Atlantic, to whom we have all listened with so much pleasure and instruction to-night. I will, with your permission, while what our friend has said is fresh in our minds, refer to two or three topics which he has raised, inasmuch as that will perhaps prevent the necessity of a good deal of repetition in discussing the first three questions which were placed before the Society in the little programme by which I endeavoured to give a direction to the thoughts of gentlemen who were going to speak. There was really nothing in these questions intended in the way that Dr. Farre supposed to lead to any very definite conclusion, or to any kind of suggestion that I myself had formed any decided or positive opinion upon them; it was more with the hope that different gentlemen would take up the different questions according as their opportunities gave them means of information, and would bring before us the results of their own individual experience upon these different questions. Dr. Barker has at once started the question by his statement that we must, as he says, from the identity of cause presume identity of result, or at any rate that if we have a specific morbid poison to deal with, that specific morbid poison always produces the same results; or, as I think I understood him to say, that I might, from the same specific morbid poison get very different results in different women under different conditions. For instance, given a morbid poison and that morbid poison received by a healthy woman, it would produce in her a very different condition from what it would produce if received by a puerperal woman, and by the puerperal woman if she is in an unhealthy condition at the time. I do not know that I exactly interpreted his meaning, but if I did I should like to say that I would go somewhat beyond that, and assert that if you have a specific morbid poison it must, under all conditions, produce identity of results. I do not believe if you inoculate small-pox in a patient that you can produce a chancre; I do not believe if you inoculate a chancre in a patient that you can produce hydrophobia; I believe you can certainly produce identity of result from identity of cause in the animal body as you do in the vegetable. If you sow a grain at the proper season in a fruitful soil the seed will germinate; if you sow a grain of wheat you do not get barley or oats. The seed germinates, and you get the same variety of vegetable produce. It is the same, I believe, with animal poisons. If you sow a seed of hydrophobia, or a seed of syphilis, or a seed of small-pox, in a patient, you get a crop of small-pox, a crop of syphilis, a crop of vaccine, or a crop of erysipelas, according to the poison you have sown. It is the same with medicine; if you give a dose of castor oil, you do not send the patient to sleep; if you give a dose of opium, you do not produce purging. All these poisons produce the same result. So with puerperal fever; if you suppose that in puerperal fever you have a specific disease different from any other fever, or from any other condition which we meet in surgical or medical practice, you must show us some cause which will, under all conditions, produce the disease just as certainly as you produce small-pox by inoculating small-pox, or scarlatina by exposing a patient to poison of scarlatina. That carries me to the question which Dr. West started, as to what share bacteria or some other form of vegetable or animal life in its lowest form may have in producing these diseases, or carrying the poisons to produce them. I agree with Dr. West that we are only on the threshold of this inquiry, and the question

which I put before the Society was simply what relation have bacteria and allied organic forms to the pyæmic process in the puerperal state, in other words, to puerperal fever? I put that question in hopes that Dr. Burdon-Sanderson, or some other gentlemen who have lately made such important investigations on this subject, who have investigated the subject of splenic fever, sheep-pox, relapsing fever, diphtheria, and erysipelas, would have come here and given us the benefit of their experience. The great use of this discussion has been that it has brought here, not only the ordinary fellows of the Society, but others from distant parts—a professor from Glasgow (whose candour and ability excited universal admiration amongst us, and a hope that some day he may occupy a still more important post than that which he now fills so creditably), some of our past presidents, several of our honorary fellows, gentlemen from the provinces practising obstetrics very largely. It has also brought a distinguished physiologist, who is among us to-night, and who I was in hopes would have spoken, who has done more perhaps to prevent disease in the country than any other man—Dr. William Farr; who, by making known the incidence of diseases and showing their causes, has done more perhaps to check preventable disease than anyone else. I hope that at some future time he will favour the Society with some statistical account of the prevalence of this fever in different localities. We have been favoured by a promise from Dr. Farr of another paper on the subject, so that, at any rate, the discussion has not been fruitless in good to the Society, and I trust that it will be beneficial to the profession at large. We have also been favoured by Dr. Farr with an account of a recent epidemic of puerperal fever in a district in the south of London. It is only for the week ending the 19th of June. In the printed returns of deaths it was stated that the cause of death was given as peritonitis and fever, which were presumably cases of childbed fever. There were three cases in the week and one in the preceding week, which, it was found on investigation, were all attended by one medical man. Between the first case and the other three he attended two cases without a fatal result, so that the first case was probably the cause. It has not yet been quite ascertained how the first case began—whether it was a case of ordinary peritonitis or not. The investigation is still being carried on. Scarlatina is still prevalent in the district. In the same week there were nine or ten deaths registered. An interesting question arises, and is being investigated, whether the two women who escaped from childbed fever between the first and third cases by this gentleman were protected by previous attacks of scarlatina. That is a most important matter. It is still being investigated, and I hope Dr. Farr will let us know the results. I have one or two letters here showing the very close connexion of scarlatina with puerperal fever, which it will, perhaps, be interesting to the Society to read. One is from Dr. Jackson, of Notting-hill. He gives the particulars of a case that occurred in September, 1864. The husband, about thirty, had a severe attack of scarlet fever, from which he recovered. The wife, who had some years previously had the fever, and who was in the end of her eighth month of pregnancy, waited upon and attended her husband day and night. In about fourteen days from the date of her husband's illness she began to feel ill, shivering and feverish, but had neither sore-throat nor eruption. Labour suddenly and sharply set in. The child was born alive, well developed and strong, but covered with the distinct and characteristic scarlatina rash. From birth it was restless and uneasy, and died on the third day. The mother progressed most satisfactorily, and the feverish symptoms abated. Milk and lochia were well established. Some slight apparently dyspeptic symptoms were complained of at the end of a fortnight, but these gradually disappeared. The cuticle on both hands desquamated, and at the end of the fifth week she was quite well, and left town for the country." I have several other letters giving instances of the close connexion which Dr. Barker has alluded to between erysipelas and puerperal fever. One is a letter from Mr. Freer, of Stourbridge:—"Some years since I left home for a few days' holiday, leaving two patients expecting their confinements. The evening before I started my father was thrown from his horse upon the front and right olecranon. The next morning the arm was red and swollen. Two days afterwards he attended both my patients, who had easy, natural labours, not requiring any assistance, and my father was not half an hour with either of them. Upon my return on the fifth day I found both my patients dying, and my father's arm so much inflamed that I had to make incisions from the elbow to the wrist. Each case had rigors in twenty-four hours. Ten years since I was engaged to attend the wife of a clergyman in her first confinement. She was a very fine, healthy lady, aged twenty-six. Upon entering the bedroom I found a nurse in attendance with an erysipelatous blush and swelling upon the side of the face. Upon inquiry she told me that two days before she had been in a Liverpool hospital to have the nasal duct opened. My patient was seized with rigors at the end of thirty hours, and died of puerperal fever on the eighth day. The nurse died of rapid erysipelas of the head and neck on the twelfth day." I have also a letter from Mr. Pemberton, of Banbury, which I need not read through. It goes to show that in a house where there is typhoid fever a woman being confined may get puerperal fever, but then I do not think at all that it follows from that that the cause was the same; for you may from drains get a variety of poisons, a variety of chemical and organic products thrown out, and one patient may get one and another another. You may get sulphuretted hydrogen, phosphoretted hydrogen, and a variety of chemical substances, and vegetable or animal organisms of a low form, and one may affect one patient and another another. Showing how this bears upon surgical practice, and somewhat in answer to the question which Dr. Playfair started, I will read a letter from Dr. Keith, of Edinburgh, giving me an account of a most remarkable series of cases, in which erysipelas, puerperal fever, and septicæmia after ovariotomy seem to have been in close association. "On the 19th of May my friend who assists me at my operations became uneasy for the first time about a puerperal case. The patient died on the 26th. On the 24th he helped me at an ovariotomy, but did not see his puerperal patient till after the operation. Next morning my patient was in a typhoid state, and had bad bedsores, with all sorts of eruptions and superficial abscesses, and recovered after this pyæmic condition had lasted a month. There was no suppuration in the pelvis. On the 30th, he assisted me at a tedious ovariotomy. The patient was quite well for six days, the pulse and temperature natural. She then suddenly shivered, the pulse rose to 170 and the temperature to 106° within a few hours, and she died five days afterwards. On the same day he opened a small superficial abscess in a lady's neck. She went after this to the country, was quite well for five days, then shivered and died five or six days after of erysipelas of the head. On the 6th June he attended a simple case of natural labour in a healthy woman. She shivered next day, and died on the 10th of septicæmia. As he went home from this confinement he himself shivered, and was laid up with erysipelas of the face, from which he recovered. The medical man who attended the last puerperal case during the few days she lived examined for an instant a patient in the first stage of labour, four days after the death of the last case, but declined to attend her. This patient had metritis, and is now recovering, the veins of the left limb being all plugged up." I have seen this kind of thing myself in surgical practice, and this led me to be extremely careful in getting the gentleman who attends the operations at the Samaritan Hospital to sign a paper before going into the room that he has not attended an infectious case for seven days, and has not attended a post-mortem examination during that time. I believe that a precaution of this sort would really very much protect puerperal women from many of the infectious diseases to which they are subject, and which, I believe, are, as scarlet fever, or as measles, or as small-pox, or as erysipelas, confounded together under the name of puerperal fever. I hope the end of this discussion will be to give more accurate names to the different conditions which have been confounded together under that one name. I should like to say a single word as to the great question of what is called homicide by infection, and the attempt that has been made, I think unfortunately, to enlist the sympathies of this Society in the protection of careless and ignorant women who deserve the punishment they have got. I think if a woman is cautioned by her medical man, who tells her that she has attended a woman in her confinement who has died of puerperal fever, and that if she attends other women she is liable to poison them, and if she goes on in defiance of this

caution to attend other women, and says, "Well, if this one dies, I will give up," such a woman is not deserving of the sympathy or help of the Society. I think we should do good service if we rather stimulated the fellows of the Society and the midwives that they employ, not to carelessness, but to additional caution, teaching them not only to wash their hands, but to use disinfectants, and above all things to avoid any possibility of doing damage to patients who employ them. Only this day I heard of a case which shows that a practitioner would do well to err on the side of over-caution. I was asking about a gentleman whom I knew some twenty years ago, who had settled down in practice in a large town. He was an able man, a gentleman in every sense of the word, a person of good character and great ability. I was told that he did not get on. I asked why, and it appeared that in early life in that town he was introduced to two families. He attended a lady in one of those families, who died of puerperal fever through no fault of his; he attended another lady shortly afterwards, and people blamed him and said that, having attended one woman with puerperal fever he ought not to have attended the second, and he never got over it. I will not say that he deserved his fate, but certainly if he had shown a little more caution, he would have proved the truth of the old maxim that "honesty is the best policy." I believe the fellows of the Society will do great good not only to themselves but to all whom they influence if they inculcate, not carelessness, not the protection of ignorant midwives, but instruction to those midwives that they must be over-cautious, and that if they find themselves in danger of propagating or carrying about disease, they must err on the safe side and say, "For a time I will give up practice. I will not run the risk of damaging the patient who has entrusted her life to my care."

SANITARY NOTES AND REPORTS.

THE second annual report of Dr. Alfred Hill, medical officer of health and analyst for Birmingham, has recently been issued, the chief feature of which relates to the epidemic of small-pox, from which the town has been suffering since the winter of 1871. During the past year it occupied the second place in the order of fatality, 637 deaths having occurred out of 3791 cases, 3367 of which are described as vaccinated, 396, or 10·45 per cent., not vaccinated, and 28 doubtful cases. So that the death-rate was 176·5 per 100,000 of the population, had since 1873 increased fivefold, and was of course enormously higher than that of any other town in the kingdom. The analyses of well-waters show much contamination with sewage-matters of excrementitious origin, derived from drains, middens, cesspools, and surface-filth; and Dr. Hill reports also, as regards the waterworks water, that the "organic impurities are much too high, and very probably productive of diarrhœa." A borough hospital was commenced some eight months ago, and the buildings have recently been increased so as to provide two distinct wards for the treatment of scarlet fever. As regards sewage and refuse disposal, it appears that there are in the borough 190 miles of streets, only about 130 miles of sewers, and four miles of paving. Indeed, it would seem, from the summary of information given in the report, that Birmingham is even more behindhand as to sanitary matters than is generally supposed, and, as we take it, no place in the kingdom more requires the services of an able and energetic health officer. Dr. Hill has included in his useful report a large array of well-tabulated statistics and some simple formulæ of advice on the prevention and management of scarlet fever.

Dr. C. E. Saunders, health officer for the combined districts of Middlesex and Herts, exercises sanitary control over a considerable extent of country, forming, as he reports, "a compact right-angled triangle, the sides of which measure twenty-one, twenty-four, and thirty miles respectively," including a total area of 150,585 acres, and a population of 108,120 persons. The report is very ably prefaced by a summarised description of the geology and natural drainage of the district and the chief industries of the inhabitants. The water-supply and disposal of sewage are then attacked, and the author gives to each and every authority for whom he works a brief account of the year's labour, with a table of mortality returns, and a list of the nuisances dealt with in each district. There is nothing in the report that calls for special comment, but its plan of arrangement is commendable, and worthy of imitation by the few who have charge of large combined and, as we should think, unmanageable districts.

Reports of the condition of Rotherham Urban and Spilsby Rural districts are before us. The former, compiled by Dr. Junius Hardwicke, describes the geography and geology of the district, present water-supply, &c., and concludes with some very diffuse recommendations, among which we find the following:—"9th. That a heavy fine be inflicted on those who are found throwing excrement or other filth into the streets." From this and other notes we infer that Rotherham somewhat needs sanitary supervision.

Dr. West Walker, health officer of the Spilsby district, ambitiously endeavours "to account for every death which has occurred in the district during the past year," and gives a fairly popular description of the sanitary condition of his district, which is essentially rural, the population being employed almost exclusively in agriculture.

Most of these reports contain caligraphic errors, that, with ordinarily careful supervision of the authors, ought to be avoided.

THE MEDICAL COUNCIL AND THE REGISTRATION TAX.

To the Editor of THE LANCET.

SIR,—I, in common with a large number of the profession, agree with your correspondent "Non Placet" in thinking that the answer of the Medical Council to applicants for aid is sufficient to raise strong feelings of indignation in those who are taxed so heavily to keep up the Medical Council. How can it be otherwise when young men entering the profession are called upon, at a time when frequently they can least afford it, to pay the sum of £5, in return for which they receive no apparent advantage? I believe that very few compelled to pay this fine (for it is nothing less) could give any statement of the benefits that they will derive from it; and it is undoubtedly the general opinion that the Medical Council does as little work as it is possible to do, and gets a large sum of money for doing that little. What can be more unseemly than the long and wordy speeches which occupy the greater part of the sittings of the Council? and how small is the benefit that the profession at large derive from them. In the really important work of protecting the profession from the inroads of unqualified practitioners the Council does its best to maintain its policy of "masterly inactivity."

There is another point to which I have referred in a previous letter (May 3rd, 1873), and that is, the grievance of having to pay additional fees for registering additional qualifications. This is a gross injustice to those compelled to register as soon as qualified. Surely it is enough to be mulcted in so large a sum as £5, without being obliged to pay a fee for registering *each* additional qualification that may be obtained afterwards.

I have not the statistics of 1874, but in 1872 nearly 400 (397) additional fees were received, amounting to £100, and the income of the Council for that year was nearly £9000.

If the profession were to express their firm determination to obtain some benefits for this large taxation, there would assuredly be some means of obtaining it.

I am, Sir, yours truly,

LEONARD CANE, M.D. and B.S. Lond.

Peterborough, July 12th, 1875.

THE annual meeting of the friends of the Chelsea Hospital for Women was held at the London Tavern last week, under the presidency of Lord Wharncliffe. The chairman, in congratulating the meeting on the increased prosperity of the institution, as shown in the augmented funds and the larger number of patients relieved during the year, expressed the opinion that more good would result from increasing the number of out-patients than by adding to the number of in-patients.

THE LANCET.

LONDON: SATURDAY, JULY 17, 1875.

ALTHOUGH the accumulated experience of many surgeons during many years has done much to determine the respective merits of the two operative procedures—lithotomy and lithotrity—for the removal of vesical calculus, it can scarcely be said that the data we have hitherto possessed have been sufficiently numerous or unequivocal to ensure a unanimity of opinion or uniformity of action. It is true that there has been for many years a general agreement concerning the two operations among some of the leading authorities; but to many good surgeons lithotrity is, even in the present day, practically little known, while lithotomy is regarded as the only safe and legitimate mode of treating stone in the bladder. This state of things is, perhaps, only natural. Until within the last few years no reliable statistics of lithotrity existed, whereas lithotomy from the earliest times has been deemed the triumph and glory of surgery. In the statistics of lithotomy cases have been dealt with by the thousand, and very trustworthy information has been obtained respecting the relative mortality at all ages, for all kinds of stones, and for all sizes; but the statistics of lithotrity have for the most part been drawn up by friends or by foes, by whom the operation has been either unduly applauded or too severely denounced. CIVIALE, for instance, defended the procedure with all the ardour of a partisan, and did not hesitate to allege that a fatal termination after the crushing operation was almost impossible. If the patient died, the cause of death was attributed to some extraneous cause—never to the operation. This indiscriminate praise, when compared with the less favourable experience of others, could scarcely fail to produce considerable distrust in the minds of impartial observers, and for a time the operation fell into disrepute with many of the best surgeons in this country. Happily, however, the operation has been rescued, in this country at least, from both the unreasonable adulation of its advocates and the wholesale condemnation of its opponents by the honest and judicial representations of Sir BENJAMIN BRODIE, Sir WILLIAM FERGUSSON, Sir HENRY THOMPSON, and others; and may be said, at last, to have assumed its proper place in operative surgery.

It is a truth now very widely accepted, that neither lithotomy nor lithotrity is suitable for every case of stone in the bladder; but that, under certain circumstances, each has its special and peculiar advantages. The conditions that justify the performance of one or the other operation are generally readily recognisable, and there is usually very little difficulty in deciding which procedure offers in a given case the best prospect of success. Indeed, all experience has tended to show the paramount importance of ascertaining what these conditions are; for on a just appreciation of them will the ultimate results very materially depend.

Safe and efficient as lithotrity has been shown to be, it is, nevertheless, true that there are states of health and conditions of kidneys, bladder, and urethra, or of stone, that absolutely preclude it. Lithotrity is, in fact, so much an operation of election that the general results will depend more on the care and attention bestowed on the selection of the cases than on the manual dexterity of the operator; and, unless this fact be kept prominently in view, lithotrity may in the long run be made more disastrous and fatal than lithotomy.

It is not our province now to enter into all the details of the operation of lithotrity, nor even to consider all the conditions likely to ensure a successful result or those calculated to militate against it. We shall for the present base our remarks on the broad question of comparative mortality.

By an analysis of more than 1800 well-authenticated cases Sir HENRY THOMPSON showed that the average mortality of lithotomy at all ages was about 1 in 8; but that by excluding all the cases under sixteen years of age, in which the mortality was 1 in 15·5, the proportion of deaths rose to 1 in 5 for all ages beyond sixteen, the increased mortality being in direct ratio to the age of the patient. The results obtained by Sir WILLIAM FERGUSSON, and set forth in his lectures delivered at the Royal College of Surgeons in 1864 and 1865, were similar. In 110 cases in which lithotomy was performed in the adult there were 33 deaths, or 1 in 3·5.

If we now compare these results with those obtained by lithotrity, always premising that the cases have been properly selected, the advantages of the crushing operation will at once be apparent. In 115 cases, in about 100 individuals, recorded by Sir BENJAMIN BRODIE, there were 9 deaths, or about 1 in 12. In 204 cases, in 185 individuals, the mean age of whom was sixty-one, recorded by Sir H. THOMPSON up to 1870, there were 13 deaths, or about 1 in 15·5; and in the 87 cases of lithotrity recorded by Sir HENRY in our columns (April 3rd), and the subsequent progress of which we published on the 3rd inst., there were 4 deaths, or about 1 in 22, the mean age of these individuals being sixty-three years and a half. Sir W. FERGUSSON's results recorded in 1865 gave 12 deaths in 109 cases, or 1 in 9. These facts, which cannot be gainsaid, argue most convincingly in favour of lithotrity; but they should not be made to weigh unfairly against lithotomy, for which many of the worse cases, obviously unfit for the crushing operation, are reserved.

An important question respecting lithotrity still, however, remained practically unanswered—namely, the condition of patients a year or two after the accident. An impression very generally prevailed that recurrence of stone was more common after lithotrity than after lithotomy. This impression was doubtless to some extent true, but the difference in the immunity afforded by the two operations had evidently been exaggerated. We need only refer to the answer to this question published in our columns by Sir H. THOMPSON a fortnight back in confirmation of this statement. In that article not only was the average mortality shown to be lower than that of lithotomy, but a large number of persons (28 out of 45) were stated to be "in good health and active existence."

There is another point, incidentally referred to by Sir HENRY THOMPSON, which has not yet received the attention it deserves—namely, the value of the lithotrite for the

removal of recurrent phosphatic calculus. It is manifestly impracticable to repeat lithotomy every time a phosphatic calculus forms; whereas by means of lithotrity these accumulations may be removed with comparative impunity several times a year. In such cases the patients are actually kept alive and well by lithotrity. Valuable as lithotrity has been and is, it may be doubted whether its full powers have yet been developed. The notion that lithotomy for the removal of stone from the adult bladder will some day be a rare if not an obsolete operation is not perhaps so utopian as we sometimes imagine. As the pathogenesis of calculus becomes more accurately worked out, as the methods of constitutional treatment become more scientific and the modes of physical examination and diagnosis more exact, it may well be that, though the formation of calculus may not be altogether prevented, the cases of stone in the bladder may all be detected while in that stage in which lithotrity has been demonstrated to give the best results.

WE notice with much pleasure that the President of the General Medical Council has intimated that it may be a future duty of that body to institute inquiries into the character and extent of the various examinations in Arts which now form the portal to our profession, and we have no doubt that the result of a few visitations during these examinations will be even more valuable than those which must ensue from the visitations of the examining bodies whilst the professional examinations were in progress. The fact that a candidate for the M.D. of the University of Durham (who seems to have already had the M.A. degree of the same University conferred upon him) was quite ignorant of composition and spelling appears to have stirred up the virtuous indignation of several of the members of the Council; but we venture to suggest that this is by no means an isolated case, and that the above University is not the only sinner. We have frequently met with both students and practitioners of modern date who are quite as illiterate, even in these days of superior educational advantages. The reason is not far to seek. The standard of general education at most of our qualifying bodies is by no means a high one; indeed, many are satisfied with lower attainments than are expected at the Cambridge and Oxford local examinations for junior boys and girls, and faults in writing on professional subjects scarcely justify medical examiners in plucking the candidate afterwards. We will not touch on the much-debated question of the necessity of Greek in these examinations, although such a slight knowledge as will explain some of our medical terminology is a very valuable acquisition, and one requiring but little time and application on the part of schoolboys. We urge more particularly the necessity of an average English education and the testing of candidates in such subjects as composition and writing from dictation. Although these form parts of elementary education at every national school, they are much neglected at many higher-class ones, and do not enter into the examinations in Arts of several of our qualifying bodies. Were these to be insisted on, we should not be scandalised by seeing "ware" for "where," "linament" for "liniment," and "orkitis" for "orchitis," as we have noticed within a very few weeks. Again, the system of continually giving extracts from the same portions of a Latin author is greatly to be deprecated. At one examination the first two books of Cæsar's Gallic War have been set since the initiation of the Preliminary in Arts fourteen or fifteen years ago. Of course, by dint of coaching and cramming, a most inferior man must ultimately pass therein, even if he fails at his three or four early trials. The time and energy required to pass the later examinations, and to gain an average knowledge of the subjects of the medical curriculum, are a sufficient tax on a well-educated student, so that medical teachers are fairly entitled to demand that those who cannot pass an average standard should be prevented from entering our medical schools.

It might have been the wiser course to have looked into these examinations in Arts even before the professional ones, for the effect of the recent suggestions must make it a still more difficult task for an ill-trained and illiterate student to obtain his diploma, and it is no hardship to stop such an one at the very commencement of his attempts to enter the profession, whereas repeated failure becomes a very serious consideration to him and his family when he has spent two or three years in medical study. It is then frequently too late for him to turn his attention to some other occupation, and he strives on and on, a continual worry to teachers and examiners, until he passes, through some lucky chance, or, more generally, has to swell the list of unqualified assistants.

The general culture of the mass of the profession is infinitely superior to that which existed previously to the introduction of these preliminary examinations, but there is still room for improvement, in order that they may keep pace with the educational advantages of to-day, and the rapid reforms of the professional examinations.

IN his valuable paper in the scientific reports of the Medical Officer of the Privy Council, Dr. CREIGHTON has dealt with the question of the origin of cancer from another side to that taken in the discussion at the Pathological Society last year. In that discussion, enriched as it was by the speeches of so many of the foremost men in the school of English pathologists, the question was dealt with in great measure upon clinical grounds alone; the result being that opinions were equally divided between the view of a purely local origin of the disease and a constitutional one. Dr. CREIGHTON, carrying on his researches at the Brown Institution, has studied carefully the histological features of the disease, and the results of his inquiry not only go far to upset the doctrines of VIRCHOW on this head, but also lead to some highly suggestive hypotheses as to the origin of primary malignant tumours. Using the term "cancer" in its widest sense so as to include not only those malignant growths which arise primarily from epithelial surfaces, but also the vast group of the sarcomata whose origin lies in the connective tissues, Dr. CREIGHTON commences by stating the results of his examination of growths in the liver secondary to those arising in the skin, bones, uterus, spleen, &c. The study of the formation of these secondary formations throws light upon the probable mode

of origin of at any rate one great class of malignant tumours—the true cancers.

The mode of origin of secondary tumours is still a matter of debate. Many hold that they arise by the direct transference of the cells of the primary growths to the seats of the secondary formations; while others, including VIRCHOW, maintain that there is a transformation of the pre-existing elements of the part into cells similar to those forming the primary tumour. VIRCHOW, however, holds that it is only the cells of the connective-tissue framework that are so transformed, the highly specialised epithelial elements of the infected organs undergoing no change. Here, indeed, is the great point of divergence between the views of VIRCHOW and those held by Dr. MOXON in this country, and confirmed by the author of this paper. Reinstating "vacuolation" into the place from which Dr. BEALE, two years ago, had removed it, Dr. CREIGHTON avers that this is the first change undergone by a liver-cell on its way to be transformed into cells similar to those composing the tumour, be this myxomatous, lymphomatous, epitheliomatous, or what not. Vacuolation is, in fact, the first stage of endogenous cell-formation—a mode of cell-multiplication which has received far less attention than it merits. Briefly, the process consists in the conversion of the greater part of the protoplasm of the gland-cell (in this instance of the liver) into a highly refractive material, probably of fatty nature, the remainder of the protoplasmic contents being either displaced to the periphery of the cell, or remaining free in the centre of the cavity formed by vacuolation. It is from this protoplasm, the vital properties of which are manifested by its deep colouration with staining reagents, that, by an endogenous process, new cells are formed, at first round and "indifferent," later assuming the specific forms characterising the cells of the primary tumour. Of this process, with various modifications, Dr. CREIGHTON has traced the progress in all its stages by examining growths in the liver of various size and development. All growing tumours in this organ are surrounded by a zone of indifferent cell-growth and by columns of liver-cell in the stage of vacuolation. The process is then a truly metaplastic (or heteroplastic) one, taking place in the protoplasm of the liver-cell under the influence of the primary growth—an influence which he terms "spermatic," the changes that occur in the liver-cell being strictly comparable with the metaplastic changes that occur in the ovum after impregnation. It will be seen by this that the connective-tissue framework of the infected organ plays no part in the process, nor does it even in the formation of a stroma, which is so frequent a character of some tumours, this also being formed from the remnants of vacuolated cells.

So far, then, for the formation of secondary tumours. There can be little doubt that there is a true genetic relation between them and the primary growths. But what light does this throw upon the nature and origin of the latter? To clear up this, which, in truth, is the point of most importance both clinically and pathologically, Dr. CREIGHTON points out that vacuolation is a natural process. The products of secretory glands are all probably formed by some such process taking place in the gland-cells themselves. The secreting cell becomes filled with its peculiar product by undergoing a process of vacuolation; and the product—be it mucus, milk-globule, or spermatozoon—is distinctly a new formation, differing from the primary protoplasmic contents of the parent cell. Should the process of cell-transformation be arrested (it may be naturally, as in the involution of the mammary gland) or perverted, the resulting products are different; the solid or protoplasmic part of the cell gives rise to new cell-forms, and in some such way a new heteroplastic growth—as cancer—may arise. Here we have, then, yet another example of morbid products resulting from perverted natural processes, and, we may add, one other link in the chain of evidence in favour of the local origin of cancer. There yet remains unsolved, however, the question as to the exciting cause of this change. Dr. CREIGHTON proposes to follow up these researches with others bearing upon the development of mammary cancer, with special reference to the processes of involution and evolution of the gland; and, when completed, they cannot fail to be of the highest value, and are calculated to throw yet more light upon one of the most obscure points in pathology.

WE are glad to take an early opportunity of referring again to the subject of Charity Voting Reform, inasmuch as it appears that since the last annual meeting of subscribers to the Royal Medical Benevolent College the position of the reform party has been considerably strengthened. It is reported that no less than 2101 names now appear on the memorial in favour of abolishing the present objectionable system of voting and canvassing; so that, as it appears, only about 300 remain who desire the continuance of things as they are. If this be the case, we counsel those interested in this question (and they are many) to take steps to call a special general meeting of the subscribers, as the matter is now ripe for final decision. It is eminently proper that this College should be in the van of reform, and should set an example that will, as we believe, be speedily followed by larger charities, both in London and the provinces. It is not necessary to recapitulate the evils of the present system, for they have been described and summarised over and over again in these pages. But we have received lately a copy of a letter on the subject addressed to the Board of Management of the Governesses' Benevolent Institution by Lord SHAFTESBURY, Justice JAMES, and the Recorder of London. These gentlemen represent on this occasion the Charity Voting Reform Association, and the letter indicates, as regards the Governesses' Institution, that, although the number of subscribers in favour of reform is as eight to one, the Board of Management decline absolutely to entertain the question of change in the present system of election. As the letter fitly puts it, this is a singular position to be taken by a representative committee. The Board is indeed a permanent and self-elected body, filling up its vacancies without being subject to any election by the subscribers at large. But if its representative character be acknowledged, a direct reference to the entire constituency of the charity should be made by it, and action taken on the result. It is evident that the cause of charity voting reform is, perhaps slowly, but surely gaining ground, and it will always receive at our hands hearty support.

Annotations.

"Ne quid nimis."

THE PUBLIC MEDICAL SERVICES.

THE time is fast approaching for the competitive examinations to be held for the Medical Services of the British and Indian armies and that of the navy. The first-named service is scarcely likely to attract any number of candidates with the large amount of discontent existing in it at the present time, and the utterly uncertain character of the remedies, if any, which Mr. Hardy is to introduce when he has definitely made up his mind. Medical officers complain bitterly of the treatment they received from the last Government. They allege that the spirit and letter of the contract which was made with their service have been violated, that they were summarily deprived of their regimental appointments and of certain privileges in a way that would not have been attempted with the officers of any other branch of the service, and that so far nothing has been done to expedite promotion or otherwise improve their position. On the other hand, a great deal has been effected in the Naval Medical Department, which is now, in our opinion, far in advance of the Military Service, and we would strongly advise intending candidates to make themselves acquainted with the terms proffered to young medical men by the Admiralty. Lastly, there are the Indian Medical Service appointments, which are not by any means so highly esteemed as they once were. Still this service attracts a good class of men, and, spite of many well-grounded sources of discontent, it offers, in our opinion, many advantages over the Medical Department of the British army.

"PASS" AND "PLUCK" AT THE COLLEGE OF SURGEONS.

IN another column will be found the report from the Court of Examiners of the number of candidates who have presented themselves for the Primary and Pass Examinations for the diploma of Member of the College of Surgeons during the collegiate year 1874–75, showing the number passed and rejected from each medical school during that period.

The general results are better than those of last year, but not so good as those for the year 1872–73. During the past year, of 727 candidates who presented themselves at the Primary Examination, 223 were rejected, or 30·5 per cent. In the previous year at the same examination there were 683 candidates and 242 rejections, or 35·4 per cent.; whereas in the year 1872–73 there were 702 candidates, with 199 rejections, or 28·3 per cent. For the Pass Examination last year there were 518 candidates, of whom 126, or 20·4 per cent., were rejected. In the year 1873–74 there were 456 candidates, with 124 rejections, or 27·2 per cent.; and in the year 1872–73 there were 461 candidates, of whom 85, or 18·4 per cent., were rejected.

It is impossible to accurately compare the merits of the different schools from these statistics, as the numbers of candidates vary greatly. To take, for instance, the medical school at Cork. There were no rejections in the primary examination, but then there was only one candidate. On the other hand, the Kingston School showed the highest percentage of rejections—namely, 100. Here, again, there was only one candidate, and he was unfortunate. Several schools each sent ·50 candidates, and as ·50 were successful the percentage of rejections was 0.

For the primary examination, Guy's has the fewest rejections—15·3 per cent. out of 78 candidates. Charing-cross stands next, with 18·5 rejections, but there were only 13·50 candidates. The rate appears to have been very high at St. Thomas's—56·7 per cent.,—and with the Westminster candidates it even reached 80 per cent. This is certainly very unsatisfactory, considering that only 10 candidates presented themselves from the latter school. Surely either teachers or students have cause for complaint.

Of the Provincial Schools, Manchester, with the greatest number of candidates (33·5) has the smallest number of rejections (16·4 per cent.) Cambridge is next; while Sheffield has once more the unenviable position of being the highest on the scale, having 70 per cent. of rejections. No conclusions can be drawn from the Irish schools, as the numbers are too small and unequal. With the exception of Edinburgh, which has 17·05 per cent. of rejections in 28·3 candidates, the Scotch schools stand low, Glasgow having a percentage of rejections of 61; and Aberdeen of 47·05.

In the Pass Examination, University College bears the palm, with 69·16 candidates, and only 10·8 per cent. of rejections. St. Bartholomew's comes next, with a percentage of 17·9 out of 61·3 candidates. The three highest percentages of rejections in the metropolitan schools are St. George's, with 30·999 per cent. out of 27·50 candidates; King's College, with 44·06 per cent. out of 29·50 candidates; and Charing-cross, which rises to 55·5 per cent. with 4·50 candidates. Manchester is, in the second examination, again at the head of the provincial schools, having only 10·7 per cent. of rejections; Cambridge is second; while Birmingham has 58·3 per cent.

THE ROMAN ACADEMY OF MEDICINE.

THE first meeting of this scientific body took place in the hall of the University of the Sapienza on the 27th June. Besides thirty-three ordinary Fellows, there were present the Minister of Public Instruction (by deputy), the Rector of the University, and a considerable number of physicians, medical students, and the non-professional public. Prof. Maggiorani, one of the most distinguished teachers of the Roman Medical School, presided and delivered an address, wherein he stated the objects for which the Academy had been instituted. He pointed to the ceaseless march of medical induction, and vindicated the value of free discussion in guiding and steadying its steps. Medicine, he argued, is rapidly becoming coextensive with the science of humanity, and its investigations are acquiring the most living interest for the legislator. Society, moral as well as physical, must rely, in the last resort, on the guidance of medicine in that enlarged sense in which the physician's art is now studied and practised. Take, for instance, the notorious case of Louise Lateau. Millions of people were being deluded into the belief that the woman was the subject of miracles, and superstition was pointing triumphantly to her symptoms as evidence of the visible working of the "spirit," till the Belgian Academy of Medicine brought science to bear on the phenomena, and reduced her periodically bleeding stigmata, her ecstatic fits, her somnambulism, and her hearing of voices, to physio-psychological law. No institution but an Academy of Medicine could have investigated the case so thoroughly or pronounced on it so authoritatively. But this is only one use of Academies. The physician in daily practice benefits by them in maintaining the "scientific attitude" so apt to be lost in the distractions of extra-professional detail, while the investigator comes to them from his laboratory to profit by the criticism his conclusions evoke from the practical mind. Useful in all great centres of life, such an Academy is peculiarly so in Rome, where prescriptive authority has so long impeded the movements of a professional class pre-eminently fitted for scientific research. The discussion

that followed Prof. Maggiorani's able address gave ample proof of the interest with which medicine, theoretical and practical, is prosecuted in the city of Galileo and Lancisi, and we may anticipate from the Medical Academy of Rome the best of all assurances that biological science maintains its rightful place in the second Renaissance which Italy is passing through.

A SECOND OCCUPATION.

ANOTHER authoritative voice in the profession speaks out in favour of the view that society is suffering, not from overwork, but from underwork. Dr. Wilks, in his paper on Overwork, in THE LANCET of June 26th, which should be carefully read, says that in his experience more ailments arise from want of occupation than from overwork, and, "taking the various kinds of nervous and dyspeptic ailments which we are constantly treating, I find at least six due to idleness to one from overwork." The question is a very serious one, and one that will well repay the attention of medical men. Our own opinion is strongly in favour of Dr. Wilks's view, that the healthiest people—i.e., people with the *mens sana in corpore sano*—are the men and women whose time is most fully occupied, those who have what Dr. Wilks happily calls a second occupation to fall back upon when the main occupation does not press. Our own profession is rich in men who have second occupations, and have even distinguished themselves in them, and our present House of Commons would supply some good examples. Lord Palmerston, one of the most hard-working of men, found his rest not only in sleep, which with him was sound at nights, but in acquainting himself with the latest indications and discoveries of science. Dr. Wilks goes so far as to say that even the occupations of fashion and frivolity are better than none, and no doubt he is right; but woe to those who find their main employment in these, greatly for this reason, that they render the mind indisposed for a second occupation, which ought to be one engaging the intellect and the senses, though in ways different from those of ordinary work.

HOMICIDE BY INFECTION.

WHETHER Elizabeth Marsden, in the course of imprisonment for conveying puerperal fever, and in it death to several of her patients, is a martyr or a justly punished criminal, is a question on which opinion in the profession is divided. It is evidently part of a much larger question involving issues of considerable consequence to the profession. On any view, good will arise from the prominence given to the culpability of continuing obstetric practice after it is clearly apparent, or even probable, that the poison of puerperal fever attaches to the practitioner. The Forfarshire Medical Association has petitioned the Home Secretary for Marsden's release, on the ground that in the present state of medical doctrine as to the numerous questions connected with puerperal fever the charge of homicide by puerperal infection cannot be scientifically proved, and that it is without precedent in criminal jurisprudence. The Association admits that she acted at variance with ordinary prudence. This is too mild a way of expressing her culpability. She disregarded the best advice, and a series of facts which should have impressed even an ignorant woman. Though, as we have already pointed out, we think the process of dealing with this new offence in law admits of abuse and misapplication, we cannot acquit Marsden of most serious blame. Mr. Wells, it will be seen, in his summing up of the late discussion at the Obstetrical Society, strongly deprecated the attempt that had been made to enlist the sympathy of the Society on behalf of such cases, and inculcated even extra precautions, so that the life of not one puerperal woman may be endangered. This is the right note to strike on this serious question, and we may feel pretty well assured that no practice honestly and carefully conducted will come within the notice of the law. We are far yet from being in any danger of overdoing the precautions of cleansing, disinfection, &c., necessary to avoid the chance of conveying disease. Let us err in the direction of excessive caution. It is lamentable to hear, as we have very lately heard, that in Vienna, where the connexion between the dissecting room and puerperal fever has been long apparent, remarkable recklessness on the subject still exists, and as a consequence great puerperal mortality.

MR. TEALE'S CASE OF HIGH TEMPERATURE.

ALTHOUGH five months have elapsed since notes of a remarkable case of high temperature were read before the Clinical Society by Mr. G. Teale, yet the case was in itself so subversive of all current ideas on the subject that we doubt not it is still fresh in the memory of our readers. With commendable candour the author of that paper has just addressed a letter to a contemporary in which he replies *seriatim* to several very natural queries that have been put to him concerning the facts of the case, and the possibilities of any artificial means within reach of the patient of raising the index of the thermometer. From this it would appear that observations were taken in mouth and rectum as well as in the axillæ, with the result of showing the same high level (110° to 120°); that the rise in the thermometer was sometimes noticed at the time; that no hot bottles or blankets were in contact with the patient by which she could have artificially warmed the thermometer; and that the instruments used had been tested and found correct, and had during the recovery of the patient registered normal as well as abnormal temperatures. As we ventured at the time to question the possibility of the maintenance of life at such a high rate of temperature (unaccompanied as it was by any extreme variation in pulse and respiration frequency), so do we now cheerfully accept Mr. Teale's further explanations, which seem to leave nothing to be desired in testimony of the faithfulness and accuracy of the record; while at the same time it leaves the *modus operandi* in as mysterious a condition as ever, and goes far to expand our hitherto too narrow notions. Exceptional and full of mystery the case must remain, and that another of like nature will occur is to be hoped, lest we may have to consign it to that limbo of "exceptions" which go to prove the rule, the rule in this instance being the incompatibility of animal life with a body heat of 120°.

THE CLINICAL STUDY OF INSANITY.

A DOCUMENT having the form of a petition, to which are attached the signatures of seventeen teachers of psychological medicine, has been forwarded to the various examining boards of the kingdom, praying them so to modify the existing regulations as to the amount of clinical study required from their candidates, that they may resemble the regulations of the University of London, which are as follows:—"Attendance during three months in the wards of a lunatic asylum may be substituted for a like period of attendance on medical hospital practice. The Senate regard it as highly desirable that candidates for the degree of M.B. should practically acquaint themselves with the different forms of insanity by attendance in a lunatic asylum." We heartily concur with the "petitioners" in their "prayer," and we doubt not that if the option were given to students of doing some of their hospital work in

lunatic asylums, many would avail themselves of it. In a lunatic asylum, although a student would learn a great deal that was special, he would at the same time come across very much which appertains to general medicine and surgery, so that this short time devoted to lunacy could not be considered as wholly deducted from the ordinary curriculum. The only drawback to the plan at present is the fact that asylums are not very conveniently situated for students, and we can hardly concur in the statement of the petitioners that "there is at least one contiguous to every medical school in the kingdom," unless the interpretation which they place on the word *contiguous* be very different from that which is usually applied to it. We must demur also to the statement that "paralysis, softening and tumours of the brain, chorea, hysteria, hypochondriasis, and others" are diseases not *usually seen* in general hospitals. Those specified are perfectly common in all general hospitals, and as for the "others" we may infer that they also are to be met with. Notwithstanding this slight overstatement, we are sure that those who have signed this document have right on their side, and we trust it will receive the serious consideration of the bodies to whom it is addressed.

THE ARTISANS' DWELLINGS BILL.

A SCHEME which (notwithstanding that it is somewhat informal and not in accordance with the letter of the Act) seems to us a plausible and a good scheme, has been laid before the Board of Works for the Holborn district by their surveyor, Mr. Lewis H. Isaacs, having for its purpose the improvement of that miserable district adjoining the Gray's-inn-road, of which the notorious St. Alban's Church is the centre. The plans accompanying the scheme—which at present, be it remembered, is merely the suggestion of one man, and has not been sanctioned by any authority—are seductive to look at, and are not at all unlikely to go far in convincing those interested that the adoption of this or a similar plan is strongly advisable. Between Gray's-inn-lane and Leather-lane is a labyrinth of foul courts, which is the chosen home of every form of physical and moral depravity. Mr. Isaacs wishes to sweep about twenty of these close courts, which shelter nearly 4000 persons, entirely away, and in their place he proposes to build, grouped round St. Alban's church as a centre, five large blocks of artisans' dwellings. The plan further involves the making of two new streets and the widening of Leather-lane and of the narrow part of Gray's-inn-lane, as well as of other less-known thoroughfares. The scheme at present is crude in the extreme, and in the absence of estimates as to cost and the probable return on outlay, it is impossible to say more than that, from a hygienic point of view, it appears admirable, and if it be carried out there must to a certainty be a dividend in the shape of improved health.

ACTION OF ACONITINA UPON THE HEART.

LEWIN, operating on frogs, finds that aconitina, in doses of ·0025 to ·0015 gramme, lowers the frequency of the cardiac beats and this occurs most rapidly when injected into the veins, more slowly when subcutaneously injected, and most slowly when injected into the stomach. The duration of the action varies from one to two hours. It is succeeded by a period of increased frequency of the heart's beats, which is soon followed by irregularity, and, finally, ends in arrest in diastole. At the close of almost all the experiments an arhythmia of the cardiac actions occurred, due to the rapid pulsation of the auricles or to their beating alone. The peripheral nerves, when the poison was administered in moderate doses, exhibited considerable diminution of excitability, and with larger doses paralysis occurred. The heart after death did not always respond to electrical excitation. In experiments on warm-blooded animals, he found that the first symptom observable was marked dyspnœa, and this augmented till death occurred; but by the application of artificial respiration for nine hours and a half continously he was able to save the life of a rabbit to which a fatal dose had been given. The dyspnœa is due to the direct action of the poison on the respiratory centre in the medulla oblongata. In regard to the heart, he obtained results of a double nature, partly conformable to those produced by digitalis (corresponding therefore to primary irritation and subsequent paralysis of the vagus), partly consisting in a diminution of the force of the heart and a rapid sinking of the frequency of the pulse. The cause of this was the action of the poison on the ganglionic centres in the heart, at one time with integrity of the vagi, and then with paralysis of the vagi.

THE HEALTH OF THE POPE.

ON Monday, the 5th inst., Pio Nono held a long and fatiguing Consistory, after which he gave thirty distinct audiences, and yet at the close of the day his lightness of step and conversational vivacity were something remarkable. Without attributing this bodily and mental vigour (as the *Osservatore Romano* does) to a miracle, the phenomenon is interesting enough to deserve comment. Pio Nono's physicians have recently prescribed him daily baths of sulphur-water, brought all the way from Civita Vecchia for the purpose. A large bathing contrivance, something like a diminutive reservoir in size, has been expressly constructed for him, and into this he descends by a little staircase, and then takes his seat in a chair, while the water gradually rises around him. Thus he sits for half an hour, the Fra Salvatore carefully manipulating the open issues in his Holiness's lower extremities, and another member of the Pontifical household attending to his wants. On coming out of this artificial sulphur-spring, or *bulicame*, as the Italians call it, the Pope is served with some strong soup in which a capon has been boiled down, and with this he takes a glass of Johannisberg cabinet, or Romanée Conti. Under this treatment he braves the excessive heat with comparative impunity, and can often dispense with his staff in walking. The issues continue open, but probably on that very account he has for many weeks been free from those epileptoid seizures to which he is constitutionally prone.

NOXIOUS FUMES FROM FACTORIES.

IT is earnestly to be hoped that the Public Health Bill which will shortly become law will provide an efficient remedy for the abominable nuisance now caused in many populous districts by the noxious emanations from chemical manufactories. Three great associations, the South-Eastern of London, the Northumberland and Durham, and the Lancashire and Cheshire, have worked in unison with the utmost zeal to induce the Government to incorporate in the measure a sufficient remedy for the evils complained of. Some few of the amendments suggested by the associations have been adopted, but others have been ignored, so that the actual working value of the new enactments must remain for the present a matter of doubt. An uncertain and expensive remedy exists, of course, at the present time. An injunction in Chancery may be sought, and is generally granted if the fact of a nuisance is clearly established. It is not necessary to prove injury to health, or even injury to property. The Lords Justices hold that a man has no more right to pour foul air over your premises than he would have to pour foul water, and several recent decisions have affirmed this view. But it is only those who are rich as

well as brave who venture on proceedings in Chancery, and meantime the grievance is widely felt. No doubt the three associations to which we have referred will take care that the powers of the new law shall soon be thoroughly tested, and we await their action with interest. Urban authorities, at any rate, will now have the power to act, and it is possible that they may prove equal to the occasion.

If they grapple with the evil, and succeed in suppressing it with the machinery they will soon be able to command, they will give a powerful illustration of the value of local government, and will quiet the fears of those who think that the new measure will prove to be another piece of sham legislation.

HAMPSTEAD FEVER HOSPITAL.

THE Select Committee of the House of Commons, appointed to inquire into the action of the Metropolitan Asylums Board with reference to the Hampstead Hospital, held its first meeting on Friday, the 9th inst. The committee consists of Mr. Sclater-Booth, chairman, and Messrs. Coope, Collins, Goldney, Hayter, Locke, A. Reed, Pell, Pemberton, Ralli, and Ritchie. The first witness examined was Mr. Wyatt, the chairman of the Hampstead Hospital, who read a long statement prepared by the Asylums Board in defence of their conduct in the matter, and giving a detailed account of the action of the board with reference to the provision of accommodation for epidemic diseases since its constitution. Mr. Wyatt's evidence did not disclose any new facts or arguments, with the exception of an admission that the main objection to the last proposed alternative site was the outcry raised about the possible contamination of water-supply from its nearness to the reservoir. Dr. Sibson, who was a member of the Asylums Board from its formation until 1868, and to whom the general plan of arrangement of the situation of the hospitals was due, was also examined, and gave an account of that plan, which consisted in having three hospitals at the corners of a triangle, each of which was to be within three miles of the locality from which the patients were drawn. He stated that the sites were chosen on account of their being away from the population. His opinion was opposed to the idea of any danger existing from the neighbourhood of a hospital to a reservoir, if the latter were on a higher level. Dr. Bridges, of the Local Government Board, who was afterwards examined, pronounced in favour of the Hampstead site. The committee have decided not to hear counsel; but the inquiry is likely to last some time.

THE BIRMINGHAM CORONERSHIP.

MUNICIPAL government, although an admirable system in theory, occasionally commits some egregious blunders, and makes itself appear ridiculous. Seldom has a more striking proof of its failure been afforded than in the recent election of a coroner at Birmingham. For a very long period Dr. Birt Davies had filled that office with credit, and on his retirement the Corporation testified its appreciation of Dr. Davies' services by giving him a very handsome vote of thanks. We should have thought that a medical man would have been regarded as his most natural and most probable successor, as the Corporation attached unequivocal importance to the special medical attainments which their late coroner possessed in so eminent a degree.

A very different policy has, however, been pursued. After advertising for candidates for the vacant office, a considerable section of the Town Council met and drew up a memorial to Mr. Hawkes, an elderly solicitor, asking him to become a candidate, and promising him their support. On the day of election Mr. Hawkes was allowed to walk over the course, all the medical candidates who might have filled the office with advantage to the town having retired. After this one may reasonably doubt whether corporations ought to be trusted with such important functions as the election of coroners.

SANITARY CONDITION OF BAGSHOT.

NOT long ago we alluded in strong terms to the disgusting condition of the village of Bagshot. Though situated in one of the healthiest spots in England, this unfortunate village has long remained in a state that would scarcely be tolerated even in an Oriental country. The only water-supply of many of the cottages is derived from a stream which is little better than a common sewer, and the few wells that we saw are exposed to an almost equally direct pollution. The Local Government Board has now taken the matter in hand, and something is at last to be done. Cesspools and drains are to be constructed; sewage is to be kept from the stream, and the latter then left "open to the public." Whether this reform will be a real one remains to be seen; but we are inclined to fear that such a stream, liable to all kinds of accidental and wilful pollutions, can never be a safe or satisfactory water-supply. It is something, however, that any kind of action has been induced.

THE KENT MEDICAL BENEVOLENT SOCIETY.

THIS Society celebrated its eighty-eighth anniversary at Maidstone on Thursday week, W. Hoar, Esq., presiding, supported by Drs. Lowry, Price, Carr, and Moncton, and Messrs. George Rigden, Wood, Joy, Hallowes, Hubbard, &c. &c. The report stated that the number of members exceeded that of any previous year, being 164; the deaths and withdrawals, 6; whilst the new members were 9. The income of the Society from subscriptions, donations, and the interest of funded property amounted to £403 13s. Two new applicants for assistance were placed on the list, making, with the annuitants of the previous year, ten in the receipt of grants, the amount given being £410. The largest sum granted to an annuitant was £80, the smallest £10. The death of the treasurer, Henry Denne, Esq., was announced; his successor, George Rigden, Esq., being elected to fill the post. The expenses of management are about £30 annually; the subscription £1 1s. a year. Its claims being purely philanthropic, and based on the principle of self-help, this Society ought to embrace every medical man in the county.

M. RICORD.

WE understand that M. Ricord is about to pay a visit of longer duration than usual to England and Scotland; and that he is likely to be the guest of Mr. Acton, in Harley-street, for a few days in the early part of August. Our illustrious and venerable *confrère* has sustained a heavy loss by the death of his bosom friend, Demarquay; and he seeks consolation in change and travel.

PEPTONES AS A FOOD.

IN a communication made to Pflüger's *Archiv*, MM. Plósz and Gyergyai, from a series of experiments recently performed, state they have ascertained that an animal fed on peptones can increase in weight, and, secondly, that nitrogenous compounds are laid down or deposited in the body. There is hence no absolute necessity that albumen should be absorbed in an unaltered condition, though this is by no means impossible. They have further shown that when peptone is absorbed it quickly undergoes change in the organism, though it cannot be positively stated whether it undergoes conversion into albumen, or whether it undergoes other changes, the albumen in the body proceeding by

the action of cells from the products of its disintegration combined with other constituents of the body. They are unable to state when this change occurs. It does not appear that oxygenation plays an important part in the process.

THE QUEEN'S HOSPITAL, BIRMINGHAM.

THE special meeting of governors, held on the 9th inst., for the purpose of considering the advisability of adopting the free system, with registration, inquiry, &c., after hearing the objections of the delegates from the working men's meeting held at the Committee-room of the Town Hall, and presided over by Mr. Gamgee, and also the arguments adduced in favour of the free system by the present and late chairman of the hospital, Dr. Heslop, and others, decided, on the recommendation of Mr. Muntz, to adjourn the discussion of the subject until November next, so as not to endanger the Hospital Sunday collection, which this year falls to the lot of the Queen's Hospital, and to give further time to the governors to consider the importance and value of the proposed changes in the administration of the hospital.

ELIMINATION OF ALCOHOL BY THE RESPIRATION.

AUG. SCHMIDT (*Centralblatt*, 1875, p. 371) states that, having read Henbach's late observations showing that little or no alcohol appeared in the urine of febrile patients to whom it had been freely administered, he resolved to submit the expired air to renewed investigation, and the result of his experiments is, that when 50 ccm. of absolute alcohol have been consumed, at most only a trace can be discovered in the expired air. This is in full accordance with the statements of Anstie and Dupré.

THE Guardians of the Keighley Union have applied to the Local Government Board to defer proceedings in the matter of the *mandamus* to compel them to carry out the Vaccination Acts. We are glad to learn that the application was unsuccessful. The Central Authority, after refusing to concede to the request, advised the guardians to comply without delay with the requirements of the law, and thus render unnecessary any further proceedings on the writ, which could only result in increased cost and trouble to the local representatives. On the receipt of this communication a resolution was proposed, to the effect that the board accepted the decision of the judges, and pledged itself to give the necessary instructions for enforcing vaccination. The obstructive members, we regret to say, carried the day, and the resolution was lost, six voting for and nine against it. In the meantime small-pox is epidemic in the district.

THE arrangements in connexion with the meeting of the Social Science Congress, to be held at Brighton, are now completed. Under the section of Health Department we find that the following questions will be discussed:—1. To what causes are to be attributed the ill-construction and want of sanitary provisions which exist in the dwellings of the upper and middle classes, and what is the best method which should be adopted to remedy and rectify the same? 2. What are the advantages or disadvantages of water-supply being lodged in the hands of local authorities? 3. What are the advantages of English, as compared with foreign, watering-places and health resorts? What are the best means for rendering the English watering-places more efficient, for obviating the dangers arising from the occasional introduction of infectious diseases, and for determining the annual rate of mortality in each district?

THE Manchester and Salford Sanitary Association have forwarded a petition to Lord Derby for presentation in the House of Lords making various suggestions with reference to the Public Health Bill. It is recommended that clauses be inserted specifying certain fevers and other infectious diseases which shall be within the compass of the Act, and providing that such cases shall be speedily brought under the notice of the sanitary authority having jurisdiction over the area in which they occur, medical men to report immediately the appearance of infectious disease. Also that every local sanitary authority shall make monthly returns to the Local Government Board.

A PARLIAMENTARY RETURN has just been issued, showing the cases in which the Local Government Board in Ireland have interfered in revising the salaries of sanitary officers appointed under the Act of last session. By this it appears that the authorities of thirty unions and of three boroughs fixed the salaries of these unfortunate officers at so low a figure that they raised at head-quarters in most cases as much as, and in some cases more than, 50 per cent., and even now seem to be but pittances.

IN our notice last week of the election of Mr. Brudenell Carter to the Professorship of Surgery and Pathology at the College of Surgeons, we inadvertently referred to him as having been the only applicant for the office. This is an error. Mr. Carter was appointed to the chair, without solicitation on his part, on the nomination of a very distinguished member of the Council, on which circumstance Mr. Carter has our hearty congratulation.

THE deaths in London last week amounted to 1400; and included 27 from measles, 58 from scarlet fever, 3 from diphtheria, 53 from whooping-cough, 15 from different forms of fever, 179 from diarrhœa, and 171 referred to diseases of the respiratory organs. Five deaths from puerperal fever were recorded in the period.

ON Monday the Prince and Princess of Wales opened the new Children's Home at Norbiton, in connexion with the Metropolitan Convalescent Institution. The new Home will accommodate 150 children. We understand that the ventilating and sanitary arrangements of the building are excellent.

THE presiding magistrate at the Greenwich Police Court has announced his intention not to impose fines in cases of adulteration of milk with water when it is not over 10 per cent. This determination cannot be said to be in strict accordance with the terms of the Act, and we shall probably hear more of the matter.

MR. WILLIAM CRAIG, of Maryport, Cumberland, formerly of Strathaven, Lanarkshire, who was admitted a Licentiate of the Faculty of Physicians and Surgeons of Glasgow in the year 1814, died on the 4th instant at the advanced age of ninety years.

IN the House of Commons this week Mr. Hardy, in reply to Mr. Lyon Playfair, said he hoped to be able at an early date to publish the new regulations in regard to militia medical officers.

H.R.H. THE DUKE OF EDINBURGH has consented to become President of the Seamen's Hospital Society at Greenwich, and has presented the institution with a donation of thirty guineas.

A VESSEL has arrived in the West India Docks, from Mauritius, with several cases of scurvy on board.

THE Hospital Sunday Fund continues to receive valuable contributions. Not the worst Christians in this matter this year are the Jews, who have contributed in all £991 14s. 4d., as against £950 14s. 11d. in 1874. We shall reserve our comments on the collection for 1875 till it is nearer completion.

WE understand that Dr. R. Beveridge, of Aberdeen, is a candidate for the vacant chair of Medicine in the University of that town. Dr. Beveridge appears to have strong claims for the appointment.

IN the House of Commons on Monday night the Medical Acts Amendment (College of Surgeons) Bill was read a third time and passed.

REPORT
OF
The Lancet Sanitary Commission
ON THE
SANITARY CONDITION OF OUR PUBLIC SCHOOLS.

INTRODUCTORY—(*Continued.*)

HAVING reviewed the various circumstances that influence the health of schools, either from insanitary conditions of the neighbourhood in which they are situate, or from defective sanitary and domestic arrangements in the schools themselves, we pass on to a consideration of the nature and extent of the medical supervision that ought to be exercised over the boys.

Medical Supervision of Schools.

Generally speaking, one of the leading practitioners of the town or neighbourhood in which the school is situate is the ordinary school attendant. At Eton, Winchester, and Harrow the house master employs his own medical man to attend the boarders in his house. At Marlborough and Rugby there is a special medical man attached to the school, who not only attends to the boys when ill at all the houses, but advises on all matters connected with sanitary management. Whatever arrangement may be made, however, with regard to individual attendance on boys when sick, we think that one medical man should be specially attached to every school, whose duty it should be to constantly overlook the school arrangements and to make himself acquainted with the habits and constitutions of the boys. In small schools, or in places where it is difficult to meet with medical men having the necessary sanitary knowledge, the medical officer of health of the district, or nearest large town, should be invited to make a periodical visitation and report on the sanitary arrangements, and see that everything is in an efficient and satisfactory condition.

The system of medical supervision is most completely carried out at Marlborough and Rugby; and from what we saw at these schools, and at one or two others, we have been able to draw up a series of recommendations which we think might be adopted in every educational establishment. In the first place, on a boy's entering the school, the parent should be obliged to furnish correct information whether the lad has had any contagious disease, and if so of what nature, and the date of its occurrence; and whether there is any peculiarity of constitution that ought to be noticed. The boy should then be carefully examined by the school medical attendant, and his name, age, weight, height, and girth round the chest entered, together with the foregoing particulars, in a register. On leaving school for the vacation he should again be seen by the medical attendant, and his increase in height, weight, and girth carefully recorded. A certificate stating the condition of the boy's health during the past half-year should be sent to the parents, who should be obliged to furnish another on the boy's return, stating if the boy has been ill or not during the vacation, and if so it should be countersigned by the family attendant, certifying the nature of the disease. Dr. Frederick Smith, of Lewisham, has drawn up a useful Register of Health in which most of the foregoing particulars can be noted, and which will be found very convenient. We have been told that many of the above suggestions are not practicable, but we can only say that most of them are enforced at Marlborough and Rugby, and that the personal inspection of the boys at the beginning and end of each half is carried out at some of the naval schools. The advantages to be gained by attention to these details are manifest. Supposing scarlet fever or measles break out in a school, the medical attendant at once learns what boys have had the complaint by looking over his register, and can then judge how many boys there are who are liable to the disease, and make provision accordingly. By examining a boy on his return from the vacation the medical man would have a chance of detecting any contagious complaint which may have been overlooked at home. We have already shown that such oversights are not uncommon, especially with respect to mild cases of scarlet fever. The half-yearly record of the boys' increase in height, weight, and girth would be invaluable, and the medical attendants of our schools would soon be able from such observations to furnish us with important information with regard to the development at this epoch of life, besides being able at once to detect any changes in an adverse direction, and by timely treatment to arrest the mischief. Dr. Fergus, of Marlborough, tells us that, in many cases, "great benefit has resulted from sending delicate boys away for the spring term, and allowing them to return for the summer and autumn terms. This causes no loss of time, as it so much promotes the general health as to enable a boy whose constitution is weak to go through his school career and end his time successfully; whereas, if he had been exposed to the cold and trying weather of spring at school, he would probably have had some acute attacks which would shatter him for years." Again, heart affections not uncommonly gradually supervene in delicate and rapidly-growing boys when exposed to undue strain and excitement. Only an intimate acquaintance with the physical condition of each boy would enable the medical attendant to detect the mischief at an early stage, and to regulate the school-life accordingly, or to send the boy away for a term, or longer period, until his health and strength allow him to return. Lastly, every boy who is not in school ought to be in the sick house. This rule is strictly enforced at Marlborough, and Dr. Fergus finds that not only is all malingering checked, but, when needful, prompt treatment and immediate isolation can be secured if the case prove an infectious one.

We cannot leave this part of our subject without referring to the influence the school work and sports have upon the health of the boys. This is a point on which we think the masters might more frequently consult with the medical attendants. With respect to the work, we did not find at the large public schools that the amount required was excessive, or that any undue pressure was put on the boys. At many of the smaller schools and proprietory colleges, however, the system of cramming is unmercifully employed. These places, not having the prestige of the older schools, endeavour to secure public patronage by forcing on candidates for successful competition in every kind of examination. It is at these schools the breakdowns are most frequent, and the cases that have been brought under our notice have been especially sad. The remedy lies with the parents. Schools having such reputations ought to be carefully avoided, for if a boy be clever he will be worked out to the last ounce, and if stupid it is probable that he will be altogether neglected. We think that the ordinary school work ought not to exceed more than six hours on whole school days, or more than four on half-holidays; before an examination, a senior boy might be allowed to extend the time to eight hours. We must condemn the practice, permitted at some schools, of allowing boys to sit up till ten or eleven o'clock in their studies or

sitting-rooms; all work should be finished by nine o'clock, and none permitted after that hour, and the boys should be in bed before ten o'clock. With regard to the school sports, we find that, with the exception of Marlborough and Rugby, little or no supervision is exercised over the boys: the weak and the strong are allowed to engage in the same sports without any regard being paid to their physical capabilities. At Marlborough and Rugby the medical officer receives with each boy a statement from the parents of their son's previous medical history, with an account of any peculiarity of constitution. If the boy is considered weak and delicate, it is settled what games he may be permitted to join in, and to what extent he may follow them. Dr. Dukes, of Rugby, tells us that the Natural History Society established at that school engages the attention of those who are unable to join in the games, and gives them sufficient exercise in the pursuit of practical geology, zoology, and botany.

We have been asked to say a few words with respect to school punishment. The subject is both difficult and delicate. There can be little doubt that corporeal punishment often has an injurious effect on boys of a highly nervous temperament, and we think the master ought always to consider what the probable effect may be before resorting to it in any individual case. We think it ought only to be administered for immoral offences, indecent conduct, or for bullying. It ought never to be used for default in school work; at all events not till the diagnosis between idleness, natural stupidity, and ill-health is made a little more certain. No master should be allowed to box a boy's ears, or rap his head with his knuckles; very serious and even fatal results have frequently followed this punishment, and its practice has been generally abandoned at all the larger and better class of schools. Giving impositions for boys to learn or write out in their play-hours we think injurious, as it confines the boy to the school-house and prevents his taking proper exercise; punishment drill would be far preferable, as far as health is concerned, and we believe would be quite as effectual. Few boys would care to spend their half-holidays in marching up and down a flagged court-yard, and going through that monotonous exercise known as extension drill. Indeed, from our own remembrance of the drill-sergeant, we think boys, if they had their choice, would prefer the imposition, over which they can dawdle at their own discretion.

THE COMPARATIVE ANATOMY OF THE PLACENTA.

BY PROFESSOR TURNER.

IN his third lecture (June 16th) Professor Turner described the formation of the zonular placenta which is met with in carnivora, in the seals, and in the hyrax and elephant. As but little is known concerning its minute structure in the two last-mentioned animals, the lecturer limited himself to the carnivora and seals, premising that this form of placentation was far more complex than either the diffuse or the cotyledonary form, and required much careful study to make its anatomical analysis.

The gravid uterus of the carnivora is bicornuate; each horn containing two or more fœtuses, each of which again is enclosed within a separate compartment of the uterus, and is provided with its own membranes. Professor Turner has examined the placentation of the cat at different periods of gestation with the following results:—A few days after impregnation, when each compartment measures about eight-tenths of an inch in length, the series of compartments looking like a string of beads, the chorion, with its still simple or but slightly branched villi, is readily detached from the mucous membrane. Already, however, the uterine mucous membrane is seen to have a different character at each pole (for about one-tenth of an inch) of the compartment from that which it presents between these parts, being smooth at the poles, but elevated, thick, and spongy, and studded with the minute apertures of the crypts in the intermediate part.

Speaking of the relation of the utricular glands to these crypts, Prof. Turner stated that there was no question that a large number of the latter, if not all, were new-formed structures, as shown in those animals with diffuse placentation. The glands lie immediately subjacent to the crypts, and may either have independent apertures, as in the ruminants, pig, and mare, or some may open into the crypts; but there is much difficulty in the investigation of this point, owing to the modified condition of the surface of the mucous membrane. The crypts, however, far outnumber the glands; and each of them is lined by a layer of epithelium supported by a vascular sub-epithelial connective tissue, as in those animals previously described.

Passing now to a later stage—namely, when a uterine compartment measures about 1¼" in its long diameter,—the chorionic villi are found to be more restricted in their distribution, and the crypts also are limited to a narrower middle segment of the compartment. There has been a recession from the poles towards the centre. So far, however, it has still been possible to detach the villi from the mucous membrane. Later still, there is a very considerable portion of the pole of each chorion free from villi, which now come to be limited to the middle third of that structure; the altered mucous membrane being similarly limited; and in this later stage the separation of the fœtal from the maternal part of the placenta becomes impossible.

Vertical sections through the fully-formed placenta show a complete interlocking of the branched villi with plates of the maternal tissue, representing the walls of the crypts, the villi reaching nearly to the surface of the mucous membrane, and the intervillous laminæ passing up to the surface of the chorion. On horizontal section, each villus is now seen to be much branched and sinuous, and to be bounded accurately by the modified crypt walls. Hence there comes to be a mechanical difficulty in the separation of the fœtal villi from the walls of the crypts, and it is this which has caused these animals to be placed among the Deciduata. The maternal laminæ consist of a basis of connective tissue freely supplied with vessels, in part capillary (as in the mare, cow, sheep, &c.), in part composed of larger trunks twice or three times the diameter of the fœtal capillaries. It is, in fact, the first indication of a sinus system in the maternal placenta. The epithelium of the crypts is columnar or irregularly polygonal in shape, the cells in the cat being peculiar in having a highly refractive nucleus.

The placenta of the cat when shed presents a perfectly smooth appearance on its uterine surface—a character due to the fact that the whole or a great part of the mucous membrane is cast with the placenta.

The placenta of the bitch resembles that of the cat in its general characters. However, the whole of the mucous membrane is not shed, and a ragged flocculent surface is left from the tearing across of the intervillous processes.

In the fox the formation of the placenta follows the same plan as in the bitch, but here the maternal vessels are more dilated, and are of colossal size as compared with those of the dog. All the epithelial cells of the crypts in the fox are columnar and of great size.

Passing to the placentation of the seal, which was illustrated by a very fine specimen from the College Museum, Prof. Turner showed that the uterine surface of the placenta in this animal was very ragged and irregular, owing to a very large amount of mucous membrane being left on the uterus when the placenta is detached. In this respect, then, the seal resembles the dog rather than the cat. The placenta is divided by means of deep fissures into convolutions, each of which is subdivided by smaller fissures into lobules. The processes of maternal tissue are here greatly modified, passing up as thick vascular bands in the fissures into the substance of the placenta, where they surround the groups of ramified villi. There is further a remarkable anastomosis of the chorionic villi with each other at the periphery of the lobuli, so as to enclose the finest processes of the maternal tissue. This arrangement is almost ordinal in its peculiarity.

Prof. Turner then formulated the following general conclusions:—1. That in studying the placenta its compound nature (fœtal and maternal) must be kept in mind. 2. That the maternal part is nothing but the modified mucous membrane of the uterus, but is of more complex nature to start with than the simple chorionic villi of the fœtal portion. 3. That a whole series of crypts is developed in the mucous membrane for the reception of the villi; these crypts

being simple, or branched, as in the pig, mare, cetacean, and ruminants; or sinuous (as in the cat), or (as in the seal) subdivided into primary, secondary, and tertiary structures, till the whole mucosa is split up into a microscopic network. 4. That the crypts are not developed from the utricular glands, but are new interglandular formations. 5. That the "decidua serotina" (or that portion of the maternal mucous membrane between the placenta and the uterine wall) exists in all these more simple forms of placentation; in the diffuse form it is the whole mucous surface; in the cotyledonary it is the "cups"; in the zonular, the mucous membrane with its laminar outgrowths; so that it follows that the large granular cells of the decidua serotina of the human uterus are no other than the modified cells of the crypts. 6. That in the zonular variety there are indications of the commencement of a sinus system in the maternal placenta.

As to the general morphology of the placenta, Prof. Turner remarked that mammalia were divided into two great groups, the *non-deciduata* and the *deciduata*; in the former (represented by the pig, mare, and cetaceans) no portion of the maternal tissues comes away at birth, while in the latter the maternal mucosa is more or less wholly detached (as in carnivora, quadrumana, and man). The usual definition of a deciduate placenta was that in which *vascular* maternal structures were brought away. Such a definition was too limited, and the term should be extended to include all those animals in which *any* part of the maternal structures was shed; for there are definite grades of deciduation, and Prof. Turner has recently found abundance of the epithelial lining of the cotyledonary crypts on the shed membranes of lambs and calves, showing that the ruminants should properly be classed as deciduata, and not among the non-deciduata. Then there are differences in the true deciduata themselves—e.g., in the cat the shedding is almost as complete as in the human female, the whole or great part of the mucous membrane in the placental zone coming away.

Lastly, as to the general physiology of the subject, the fœtus must be regarded as a parasite living on the juices of the mother. Doubtless in some animals the utricular glands play an important part in the nutrition of the fœtus; but in the seal and carnivora their epithelium is degenerated; and in the human female these glands disappear at the third or fourth month of pregnancy. The process of nutrition is then chiefly carried on by the new-formed crypts, which have all the characters and structures of glands, being lined by an epithelium and highly vascular, as is well seen in the diffused, cotyledonary, and zonular placenta. Harvey described a secretion in the cotyledons of ruminants which he termed "uterine milk," the product of the crypts in these structures. There are certain difficulties to be met with in applying these conclusions to the placentation of the higher mammalia, but the consideration of these Professor Turner said he would leave to another occasion.

The lectures were abundantly illustrated by several excellent specimens and histological preparations; and Professor Turner's lucid descriptions were aided by a series of well-executed diagrams.

Obituary.

J. F. CLARKE, M.R.C.S.

THOSE of our readers, and they are now few and far between, who can remember the establishment of THE LANCET under the late Mr. Wakley, and its early career, will naturally associate therewith the name of the man whose death we have now to record. Mr. Clarke was probably one of the best known medical journalists in London. He commenced work for THE LANCET (on the recommendation of Liston, who had a warm regard for him) shortly after its establishment, and was an eminently useful member of the staff for many years. For his line and mode of action were in consonance with the tone and feeling of the time some forty years ago, when close corporations existed, abuses abounded, and active purgations were sorely needed in our profession. Mr. Clarke was physically as well as mentally active. He was ingenious, too, in carrying out for himself ways and means of obtaining information, if that information were not procurable through the ordinary channels. Having passed through, seen, and observed closely several phases or turning points of the profession and their representatives, he had a fund of anecdote possessed probably by no other man of his own cloth in London, and his jokes were mostly good, and sometimes pungent. He was, in fact, a peripatetic encyclopædia of the past generation of doctors, commencing at a time when private schools of medicine flourished, and the Apothecaries' Society reigned supreme. He took his first diploma in 1837, and practised in Gerrard-street for many years, where he died on the 6th of July last.

JAMES BRYDGES SAYERS.

FREQUENTERS of the Royal Dublin Society house will miss henceforth a familiar face. "Old Doctor Sayers," whose marked features and bent form have for more than twenty-five years been so well known at all the meetings of the Society, will appear there no more. He died at the advanced age of eighty-three on April 20th. He deserves, however, somewhat more than this passing mention. His family, which originally bore the name of Brydges, were of English origin. The name of Sayers was assumed with a property bequeathed with that condition.

James Brydges Sayers was born in the year 1792 in Limerick, near which place his father owned some property. He early showed an unusual capacity for knowledge, so that he became at the age of fourteen a student at the University of Edinburgh. During the following ten years he studied not only there, but in London and Dublin, and from all three cities he obtained diplomas and certificates in medicine, surgery, and midwifery. At the end of this period he appears to have had some intention of visiting Italy, in order to study at Padua and elsewhere the practice of the Italian schools of medicine and surgery; but at this time his elder brother, William Brydges Sayers, who was in extensive practice as a physician in Limerick, died, and James was summoned home to take his place. He continued to practise there for nearly thirty years, during which time he earned the affectionate regard of many whose lives he was the means of prolonging and whose sufferings he alleviated. About the year 1846 his health began to fail, and in 1848 he finally retired from practice, and removed to Dublin.

During all his active life as a physician, and even before, when only a student, Dr. Sayers had taken a deep interest in scientific pursuits, for his attainments in which he earned the respect of many whose names are now deservedly eminent in the world of science. His removal to Dublin enabled him to indulge his tastes more fully in the congenial atmosphere of the Royal Irish Academy and the Royal Dublin Society, of which last he was, as we have said, a prominent member.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed the Primary Examination in Anatomy and Physiology at meetings of the Court of Examiners on Monday, Tuesday, and Wednesday last:—

I. B. Noble and I. H. Callender, Newcastle-on-Tyne; F. Le M. Grosett, Toronto and Edinburgh; K. R. Kirtikar, University Coll. and Bombay; J. Peake, Glasgow; W. E. Margetson, Leeds; F. J. Spranger, G. F. Harris, and C. Winterbottom, St. George's Hospital; C. E. Shelly, Cambridge; A. R. M'Dougall, Edinburgh; W. Rhodes, Birmingham; F. F. Folkes, J. E. Pilkington, and J. Newton, Manchester; E. L. M'Ardle, R. Jones, W. Huey, and E. F. Owen, Liverpool; J. A. Irwin, L. R. Wilkin, and W. F. Jones, Dublin; R. Edmunds, E. S. Bontein, W. T. Jackman, J. S. Lambert, T. W. Fagg, W. M. Burgess, R. Lyddon, T. V. Nicoll, A. G. P. Gipps, W. Kay, F. A. Trevan, D. A. Sugden, A. S. Bradford, F. C. Craddock, A. G. Bernard, and J. Rhys, St. Bartholomew's Hospital; A. A. Wolff, St. Thomas's Hosp.; H. W. J. Liebstein, L. M. B. Jones, J. A. Masters, A. F. Stevens, and J. F. Dell, Guy's Hospital; R. T. Richardson, London Hospital; G. S. Boutcon, Westminster; J. V. Continho, Bombay and University College; C. C. Jewell, C. C. Claremont, J. W. Bond, W. Gristock, and T. B. Green, University College Hospital; R. W. Collett, St. George's and Westminster Hospitals; H. C. Jee, Birmingham and Guy's Hospital; J. C. Gardner, Newcastle and University College; W. Pratt, Aberdeen; C. F. Goode, St. Mary's Hospital.

For the Pass Examination for the Membership of the College, which commenced on the 16th, there are over 170 candidates.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on July 8th :—

Batterbury, Richard Legg, Haverstock-hill.
Blake, Andrew Henry, Castle-street, Berners-street.
Blake, Henry, Bedford.
Burton, Harry, Greenheys, Manchester.
Cooper, John Neild, Hyde, near Manchester.
Jones, Cyril Lloyd, Blackfriars-road.

The following gentleman passed the Primary Professional Examination on the same day :—

Inman, Robert Edward, London Hospital.

A FATAL case of heat apoplexy, in a boy aged ten years, occurred last week at Upton.

JOHN REID, Esq., R.N., Largan Dunoon, has been placed on the Commission of the Peace for the county of Argyll.

RECENT advices from Constantinople state that vessels arriving there from Syrian ports are now required to perform ten days' quarantine in the Dardanelles.

A WARDER in Greenock Lunatic Asylum has been charged with causing the death of a lunatic by throwing him down and kicking him. The insane patient was violent and first attacked the warder.

DR. SAMUEL ROOTH, of Dronfield, has been awarded by the Local Government Board a gratuity of £18 10s. for efficient vaccination in his district (Dronfield District of the hesterfield Union). This is the third time in succession that he has received it.

PRESENTATION.—On the 6th inst., at Southport, near Liverpool, Mr. George Coombe, having fulfilled the period of his engagement as house-surgeon of the infirmary of that town, received from the governors of the institution a very handsome recognition of the services he had rendered. The first gift was a copy of a resolution of the Board of Governors, embodying a very warm expression of their thanks, beautifully illuminated on vellum ; the second gift was a chronograph watch of the value of 40 guineas ; and lastly, a purse containing £100.

BEQUESTS, &C., TO MEDICAL CHARITIES.—Miss Julia Ann Scott Webb, of Cadogen-place, bequeathed £5000 each (less duty) to the Metropolitan Convalescent Institution, Walton-on-Thames, and the Royal Hospital for Incurables, Putney. The Brighton and Hove Dispensary has received £5000 under the will of Mr. John Paine. The Hospital for Sick Children, Great Ormond-street, has received £1000 anonymously for the support of one cot in perpetuity in the new hospital. Mr. Peter Hardy bequeathed £1000 to the Worcester Infirmary, and £500 to the Worcester Dispensary. Mr. Wm. Henry Gore Langton, of Prince's-gate, Hyde-park, bequeathed £500 each to the Bristol Royal Infirmary and the Bristol General Hospital.

Medical Appointments.

ARCHER, E. G., M.R.C.S.E., has been appointed Medical Officer to the Ancient Order of Foresters, Diss, vice Button, resigned.

BARKER, W. L., L.R.C.P.L., M.R.C.S.E., has been appointed Medical Officer to the Convict Prison, Chatham, vice Burns, transferred.

BELL, J. H., M.D., M.R.C.S.E., has been appointed a Medical Officer to the Bradford, Yorkshire, Infirmary and Dispensary.

BETTS, N. P., M.R.C.S.E., has been appointed Certifying Factory Surgeon for the District of Ashby-de-la-Zouch, vice Dicken, deceased.

BUTLER, E. FITZ GARRET, L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer and Public Vaccinator for the Boston District and the Workhouse of the Boston Union, vice Radley, resigned.

COBBOLD, C. S. W., M.D., L.R.C.P.Ed., M.R.C.S.E., has been appointed Assistant Medical Officer at the Metropolitan Asylums District Asylum for Lunatics, Leavesden.

CRAWFORD, J., M.D., C.M., has been appointed Medical Officer for the Manningham District of the Bradford Union, Yorkshire, vice Sugden, deceased.

DAVIES, J., M.D., has been appointed Medical Officer and Public Vaccinator for the Ebbw-vale District of the Bedwellty Union, vice Brewer, resigned.

DRAPES, J. B., M.B., C.M., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Kenlue Dispensary District of the Boyle Union, Co. Roscommon, vice Smith, appointed to the Durrow Dispensary District of the Abbeyleix Union, Queen's County.

DUDLEY, J. G., M.D., has been elected a Consulting Physician to the North London Consumption Hospital.

DUNCAN, A., M.B., M.R.C.S.E., has been appointed Medical Registrar to the Charing-cross Hospital, vice Creighton, resigned.

GODSON, C., M.D., C.M., M.R.C.P.L., has been appointed Assistant Physician-Accoucheur to St. Bartholomew's Hospital.

GOYDER, D., M.D., L.R.C.S.Ed., has been appointed a Medical Officer to the Bradford, Yorkshire, Infirmary and Dispensary.

GREENFIELD, W. S., M.D., M.R.C.P.L., has been appointed a Physician to the Royal Hospital for Diseases of the Chest, City-road, vice Donkin, resigned.

GREGORY, G., M.D., L.R.C.P.L., M.R.C.S.E., has been reappointed Medical Officer of Health for the Westhoughton Urban Sanitary District : £30 per annum.

HARRISON, H. B., M.R.C.S.E., has been appointed Second Assistant Medical Officer to the Metropolitan Asylum District Asylum for Imbeciles, Caterham.

HAYMAN, F. D., M.R.C.S.E., has been appointed Assistant House-Surgeon to the Metropolitan Free Hospital, Devonshire-square, vice Harrison, resigned.

JOHNSTON, W. W., M.R.C.P., has been elected a Consulting Physician to the North London Consumption Hospital.

LEACROFT, J. W., M.B., has been appointed a Public Vaccinator to the Alcester Union, vice Hiron, resigned.

MEADE, H., M.R.C.S.E., has been reappointed a Medical Officer to the Bradford, Yorkshire, Infirmary and Dispensary, upon the expiration of his term of office under the rules.

PETTINGER, Mr. G. W., has been appointed a Factory Surgeon for Manchester, vice Dr. Pettinger, who has resigned from ill-health.

POWELL, J., M.R.C.S.E., has been appointed Medical Officer for the Penbryn District of the Newcastle-Emlyn Union, Carmarthenshire, vice Evans, deceased.

ROSE, W., F.R.C.S.E., has been appointed an Honorary Surgeon to the Royal Free Hospital, vice Hill, deceased.

RUCKLEY, H. R., L.R.C.P.Ed., L.R.C.S.I., has been appointed Certifying Factory Surgeon for the District of High Wycombe, vice Bowstead.

SHONE, W. J., M.R.C.S E., has been appointed Certifying Factory Surgeon for the District of Great Marlow.

SMITH, G., M.D., M.R.C.P.L., has been appointed a Physician to the Royal Hospital for Diseases of the Chest, City-road, vice Dobell, appointed a Consulting Physician.

STAFFORD, J. F., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer and Public Vaccinator for the No. 4, or Windlesham District of the Chertsey Union, Surrey, vice Kough, resigned.

STONE, V., F.R.C.S.Ed., L.R.C.P.Ed., has been appointed Medical Officer and Public Vaccinator for the Pariah of Fettercairn, vice Stephen, resigned.

WILLIAMS, J., M.D., has been appointed Medical Officer to the Penrhyn Quarry Benefit Club and Hospital, vice Roberts, resigned.

WILSON, C. W., M.R.C.S.E., has been appointed a Surgeon to the Convalescent Society and Prudhoe Memorial Convalescent Home, Whitley, vice Forster, resigned.

Births, Marriages, and Deaths.

BIRTHS.

BERTON.—On the 4th inst., at Sydenham, the wife of Edwin D. Berton, M.B., of a daughter.

DUCKWORTH.—On the 10th inst., at Grafton-street, Piccadilly, the wife of Dyce Duckworth, M.D., of a son.

GLEN.—On the 6th inst., at South-bank, Yorkshire, the wife of James Glen, M.D., of a son.

HEWLETT.—On the 14th inst., the wife of John C. Hewlett, Esq., of The Ferns, Hornsey, and Cree Church-lane, Leadenhall-street, of a daughter.

MACFARLANE.—On the 8th inst., at Walmer, Kilmarnock, N.B., the wife of Alex. W. Macfarlane, M.D., of a daughter.

MILLER.—On the 9th inst., at Church-road, Upper Norwood, the wife of R. M. Miller, M.D., of a daughter.

SUTCLIFFE.—On the 5th inst., at Denmark-hill, the wife of John Sutcliffe, M.R.C.S.E., of a daughter.

MARRIAGES.

FLETCHER—PORTCHETT.—On the 7th inst., at St. John's, Tottenham, John Corbet Fletcher, M.D., to Martha Parker, daughter of J. S. Portchett, Esq.

PHILLIPS—ANDERSON.—On the 7th inst., at Edinburgh, Robert Edward Phillips, B.A., M.B., of Bromley, Kent, eldest son of the late Edward Phillips, M.D., to Christian Gibson, second daughter of Major-General Anderson, C.B., late Royal Artillery.

DEATHS.

BELL.—On the 24th ult., at The Scores, St. Andrews, Oswald H. Bell, M.D., aged 38.

BIRT.—On the 10th inst., at Harcourt-terrace, West Brompton, Hugh Birt, F.R.C.S.E., aged 61.

BURNETT.—On the 4th inst., at Tullow, Co. Carlow, R. Burnett, L.K.Q.C.P.I., aged 67.

CROZIER.—On the 9th inst., at Arundel-street, Strand, H. Acheson Crozier, M.R.C.S.E., aged 74.

HOPKINSON.—On the 24th ult., at St. Martin's, Stamford, Wm. Lander Hopkinson, M.D., aged 77.

MENZIES.—On the 7th inst., at Westbourne-park-road, Duncan Menzies, M.R.C.P.L., Deputy Inspector-General Army, aged 72.

MITCHELL.—On the 2nd inst., at Ladykirk House, Monkton, Ayrshire, Alex. Mitchell, M.D., R.N.

MOIR.—On the 8th inst., at Dicconson-street, Wigan, Lancashire, Julie Marie, the dearly beloved wife of G. C. Algernon Moir, M.R.C.S.E., L.R.C.P.L., in her 25th year.

OLIVE.—On the 4th inst., at Buxted, Sussex, Edward Olive, M.R.C.S.E., aged 37.

TAPLIN.—On the 10th inst., at Lansdowne House, Coventry-road, Smallheath, Birmingham, Edith, the infant daughter of J. F. Taplin, M.D., aged 13 months.

WORKMAN.—On the 29th ult., at Basingstoke, Geo. Workman, M.R.C.S.E., aged 71.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*]

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

REPORT from the Court of Examiners of the Number of Candidates who have presented themselves for the Primary and Pass Examinations for the Diploma of Member of the College during the Collegiate Year 1874-75, showing the number who have passed and have been rejected from each Medical School during that period.

PRIMARY EXAMINATIONS.—1874-75.

Medical School.	Totals.	Number passed.	Number rejected.	Percentage of rejections.
University College	87	61·50	25·50	29·3
St. Bartholomew's	80·83	61·3	19·50	24·1
Guy's	78	66	12	15·3
St. Thomas's	64·3	27·83	36·50	56·7
King's College	47	33	14	29·7
London	41·83	26	15·83	37·8
St. George's	31·50	22·50	9	28·5
Middlesex	26·50	16·50	10	37·7
St. Mary's	25·50	20·50	5	19·6
Charing-cross	13·50	11	2·50	18·5
Westminster	10	2	8	80
Manchester	33·50	28	5·50	16·4
Birmingham	28·83	20	8·83	30·6
Liverpool	25	17	8	32
Leeds	23·3	17·50	5·83	25
Bristol	16	11	5	31·25
Cambridge	15	11·50	3·50	23·3
Newcastle	8	5·50	2·50	31·25
Sheffield	3·3	1	2·3	70
Dublin	13·50	6·50	7	51·851
Belfast	1·50	1·50	0	0
Cork	1	1	0	0
Galway	·50	·50	0	0
Edinburgh	28·3	23·50	4·83	17·05
Glasgow	9	3·50	5·50	61·1
Aberdeen	2·83	1·50	1·3	47·05
Calcutta	1	1	0	0
Montreal	3·83	3·83	0	0
Toronto	3	1	2	66·6
Kingston	1	0	1	100
Halifax	·50	·50	0	0
Heidelberg	·50	·50	0	0
Vienna	·50	·50	0	0
Totals	727	504	223	30·5

PASS EXAMINATIONS.—1874-75.

Medical School.	Totals.	Number passed.	Number rejected.	Percentage of rejections.
Guy's	96·83	73·83	23	23·7
University College	69·16	61·6	7·50	10·8
St. Bartholomew's	61·3	50·3	11	17·9
St. Thomas's	49·50	40	9·50	19·19
King's College	29·50	16·50	13	44·06
London	28	22	6	21·4
St. George's	27·50	19	8·50	30·909
St. Mary's	14·3	11·50	2·83	19·7
Middlesex	10·16	7·16	3	29·5
Charing-cross	4·50	2	2·50	55·5
Westminster	3·50	2·50	1	28·5
Leeds	15·83	10·83	5	31·5
Manchester	14	12·50	1·50	10·7
Birmingham	12	5	7	58·3
Liverpool	11·50	7·50	4	34·7
Bristol	10	6	4	40
Cambridge	6·83	5·3	1·50	21·9
Newcastle	6	4	2	33·3
Sheffield	5·3	3	2·3	43·75
Hull	1	1	0	0
Dublin	9·83	5	4·83	49·1
Belfast	1	1	0	0
Galway	·50	·50	0	0
Edinburgh	10·50	8	2·50	23·8
Aberdeen	1·50	1·50	0	0
Glasgow	9·3	6·83	2·50	26·7
Montreal	2	2	0	0
Toronto	2	1·50	·50	25
New York	2	2	0	0
Philadelphia	1	1	0	0
Paris	·50	0	·50	100
Vienna	·50	·50	0	0
Heidelberg	·50	·50	0	0
Totals	518	392	126	20·4

20th May, 1875. F. LE GROS CLARK, President.

Notes, Short Comments, and Answers to Correspondents.

HOSPITALISM.

THE *Continental Herald* states that Dr. Lefort, surgeon of the Beaujon Hospital, has just placed in the grounds of the institution a vast tent, to which he has removed all his patients. The object of Dr. Lefort is to try whether the open-air system would not affect favourably the amount of mortality following surgical operations, and thus help to solve the question of hospital ventilation.

M. THOLOZAN'S VIEWS ON CHOLERA.

M. THOLOZAN is physician to the Shah of Persia, and has been so for many years. He may be considered to have enjoyed special opportunities of studying diseases of Eastern origin. His opinions, therefore, on cholera are entitled to particular attention. Being at the present time in Paris, M. Tholozan has laid his views before the Academy of Medicine, and we here offer an abstract of them. The starting-point of the epidemics of 1831, '47, '52, '56, and '65 had in former communications been settled by the author, he having shown that most of the epidemics which have been observed in Europe for the last thirty years have not been imported from India, but have arisen from the germs left by preceding epidemics. He wished to ground his opinion upon facts alone, especially as to the nature of the original manifestations of cholera, and the manner in which it has spread. M. Tholozan endeavours to prove that in India as well as Europe the epidemics of one period spring from incompletely extinguished former epidemics. Cholera reigns in Europe in the same manner as on the banks of the Ganges. It incontestably travelled first from Asia to Europe; but it is equally sure that for the last sixty years it has settled amongst us, continues so, lies dormant, and sometimes breaks out, just as happens in India. Those who think that every cholera epidemic in Europe is imported from India are in error, no facts supporting the theory. The truth is, according to the author, that the scourge has a wonderful power of spreading, and exhibits variable intensity and symptoms. But although the effects, the manifestations, and the contagious properties present modifications, although the danger may increase or diminish, the morbid entity remains the same, and those who make a distinction between Asiatic cholera and the sporadic form of the disease (cholera nostras) are grievously mistaken. M. Tholozan is a supporter of quarantine and sanitary restrictions, on account of certain advantageous results which have accrued from them.

THE letter of *Mr. Crippa Lawrence* shall be kept in mind.

SWIMMING AS A CONVIVIAL ENTERTAINMENT.

To the Editor of THE LANCET.

SIR,—If feats in swimming are to become matters of competitive examination, I think some rules should be issued for the performances.

The great danger the swimmer is exposed to is the benumbing effect of cold, and the man who can best endure it is the man capable of remaining uninjured the longest period in the water; but a swimmer who is assisted by "goes" of brandy while he is in the water does not prove how long he can remain in the water trusting *only* to his own strength, but rather what effect spirits have in enabling a man to resist cold. There are plenty of men in England who would think little of swimming twenty miles with the tide running four knots in their favour; but I do not think there are many who could do it comfortably or without suffering if unassisted by refreshments or stimulant of some kind. An experiment might be tried in the interests of science by testing a man's endurance of cold in the water under the effect of different diet. Twenty miles on a teetotal system *versus* the same distance supported by fermented drinks would form a splendid competitive examination, and draw an enormous concourse of publicans and Permissive Bill people as spectators; but of course, so far as swimming pure and simple goes, the trial would prove nothing at all. As a general rule, shipwrecked people or persons falling overboard, or those who jump after them to rescue them, have no kind friends to administer stimulants while boats are being lowered to pick them up. At any swimming competition I should say nothing should be taken when once the swimmer has entered the water until he comes out again. It would be rather curious to ascertain if the loss of heat would be greatest in a long swim if the man before commencing took—first, brandy; secondly, tea; or thirdly, merely rubbed his body well with oil.

Yours &c.,

July, 1875. A PORPOISE.

W. M. B.—Under the circumstances mentioned, it would be best to apply at the Fever Hospital. It is not desirable that the general hospitals should admit such cases, unless they are provided with special wards completely detached.

Dr. T. J. Denton.—Hypophosphite of calcium.

LEPROSY IN BOMBAY.

A CORRESPONDENT of the *Standard* writes from Bombay as follows:—

"There are more than 200 lepers in Bombay; but I little expected to see Europeans among them, and to learn that it was by no means an uncommon thing. One of these unfortunates had been a clerk, one a sailor, and one a railway *employé*. The whole subject is one to which I desire to call special attention. Some days afterwards I went over the Jamsejee Dharmsála, or almshouse, where the great mass of the lepers congregate. Here I saw nearly 200 persons—men, women, and children—suffering from this frightful disease, and occupying rooms which, when vacated by them, are taken by other persons free from the disease. Is it any wonder that under such circumstances the disease should spread? I had the advantage of going over the place with Dr. Vandyke Carter, the greatest living authority on the malady, and his decided opinion is that the only way to stamp it out is to seclude the sufferers. In face of this, how is it that Government allows the lepers to live in a public almshouse, open to all comers, and to mix daily with the crowds that throng the streets of Bombay? No wonder that our unfortunate fellow-countrymen are among the victims of such a system. I may add that some beggarly economy of the Calcutta people bids fair to put a stop to Dr. Carter's researches. He is a man wholly devoted to the study of how to relieve mankind of this scourge. He has visited other countries to prosecute his inquiries. He has undertaken the loathsome task—made glorious indeed by the spirit that animates him—of dissecting the bodies of those who die of the disease, and has by the microscope made important discoveries. One would have thought that gold could not purchase devotion to such a cause, and is it all to be thrown away in order to save a small sum which will probably be immediately wasted in building some useless outhouse?"

LATE MESSAGES TO DOCTORS.

SOME patients are peculiarly orderly in regard to their habit of sending for the doctor. They seem always to be taken ill at the proper time, and to send a message that can be considered before their medical officer leaves his house in the morning. And some patients are just the reverse. Their ailments happen at the most inconvenient hours, or rather their messages arrive then—just when the doctor is going to dine, or just after he has come in from a long round, in the course of which he passed the unmethodical patient's door. The Forfarshire Medical Association has properly resolved to try the effect of a remedy for this unmethodical style of patient. According to the report of the proceedings at the seventeenth annual meeting, the resolution unanimously adopted at the last year's meeting, "that all visits sent for at 10 A.M. and requiring to be attended to the same day, should be charged at an extra rate," was again confirmed, and ordered to be advertised in all the papers published in the county. We commend this resolution to the attention of other Societies.

Dr. Ramskill's lecture shall be published.

THE NEW FEVER DEPARTMENT OF THE SUSSEX COUNTY HOSPITAL.

To the Editor of THE LANCET.

SIR,—If you had been acquainted with all the circumstances attending the proposed erection of a new building for infectious disorders in connexion with the Sussex County Hospital, and respecting which there has been a good deal of misrepresentation in the town, I am very much mistaken if you would not have come to a different conclusion as to the desirability of transferring the new building to a site beyond the boundaries of the town rather than placing it where it is now proposed, inside the hospital grounds, and within a few yards of the main building. The fact is that this addition to the hospital originated, not with the fever department, but with the difficulty of knowing what do with our erysipelas cases. Everybody acquainted with hospital practice knows how very important it is that all cases of erysipelas should be immediately removed from the surgical wards, and kept separate from the rest of the patients, with a separate staff of nurses, dressers, &c. &c. This accommodation the Sussex County Hospital does not at present possess, and for the want of it we have not unfrequently been put to very great inconvenience. It was thought accordingly by the medical staff that Miss Poore's beneficent donation could not be better spent than in providing a building for the above object, and, as the funds were sufficient, that it would conduce still further to the convenience and security of the hospital and neighbourhood if the fever wards were also removed, and made part of the new and detached building. Hence the origin of the proposed so-called new fever hospital, of which so much has been said. All general hospitals must have some amount of accommodation for fever and other infectious disorders, for cases which not unfrequently originate within the institution, as well as for the use of the subscribers. Besides, cases of fever are constantly occurring which, either from the weakness of the patients or the unwillingness of the parents and friends, do not admit of being sent long distances out of town. As we do not intend to increase the accommodation for infectious disorders by a single bed, and the new building will enable us to take extra precautions to prevent the spread of infection, both as regards the institution itself and the neighbourhood, it puzzles me to know what possible objection there can be to it.

As regards extra-mural fever hospitals, my impression is, though all medical men readily admit the great importance of isolation in all infectious disorders, that under present circumstances little real good would be derived from them. Setting aside the difficulty which would very often be experienced in getting a suitable site for such institutions, which is now the case with the proposed fever hospital for the metropolis, the cost of the buildings and their subsequent maintenance would be very considerable, and, after all, they would be very little used. People, as a rule, have a great objection to sending their children and relations a long distance into the country. Such institutions might certainly come into use during serious and extensive epidemics; but as regards Brighton there are fever wards at the infirmary which might be made available on such occasions. Granted that one source of infection, both as regards the atmosphere and drains, would be removed from the town centres, yet scores of others would still remain from the private houses where illness existed, so that but very infinitesimal results would be produced. Besides, there is no reason why the evacuations of hospital fever patients should be allowed to go into the street drains at all. They might be disposed of in some other way, or they might be disinfected before passing into the drains, and I hope that some such precautions will be taken in the new fever department of the Sussex County Hospital. I admit that if Government should ever give local authorities the power of enforcing isolation in infectious diseases, extra-mural fever hospitals would become a necessary adjunct to all large towns, and that under such circumstances great good would doubtless result from them. But I fear that the public at present are very far from being willing to submit to any such useful legislation.

I am, Sir, your obedient servant,

WILLIAM KEBBELL, M.D.,

July 2nd, 1875. Senior Physician to the Sussex County Hospital.

MUSHROOM POISONING.

THE house-surgeons of the Charité Hospital at Lyons partook a short time ago of a piece of pastry (vol-an-vent), which, among other ingredients, contains mushrooms. Two of the young gentlemen ate of these mushrooms—one moderately, the other more freely. Severe symptoms of poisoning soon occurred; they were slight with one of them, but so severe with the one who had eaten freely that he had a narrow escape of his life.

GERMAN MEDICAL LITERATURE.

To the Editor of THE LANCET.

SIR,—If "Fatherland" likes to avail himself of any aid I can give him, it shall willingly be afforded him, as I long lived in Germany.

Yours &c.,

Ipswich, July 9th, 1875. HENRY P. DRUMMOND, M.D.

ALCOHOL IN NAVAL HOSPITALS.

IT is stated that the Admiralty has decided that patients in the naval hospitals who may be total abstainers, and do not consume the amount of beer or wine prescribed for them, shall in future be paid the value of such liquors. This arrangement, if really contemplated, whilst probably owing its origin to a philanthropic desire to encourage temperance in the navy, appears to us open to question with regard to its consistency. The stimulants are either needful to the patients or they are not. If the former, money cannot properly be substituted for them; if not necessary, they should not be ordered, and a money equivalent is out of the question.

Mr. R. Harrington.—We regret we cannot oblige our correspondent.

SECTION-CUTTERS.

To the Editor of THE LANCET.

SIR,—I regret that my description of my modification of the freezing section-cutter was in your hands before I saw Mr. Lawson Tait's valuable article on the subject in the last number of the *Journal of Anatomy and Physiology*. In your issue of the 3rd inst. he expresses an opinion that the great objection to my instrument is the constant attention it requires, and the difficulty this will occasion to observers whose time is interrupted. It seems to me that his instrument requires more constant attention, and attention of a much more skilled kind, during the process of freezing than does mine, and that the advantage of keeping the tissue frozen for a great length of time is very slight. By reducing the outflow from my instrument after the freezing is complete, it can easily be kept in good condition for a considerable period; and it seems to me that as the great advantage of the process consists in the facility it affords for completing the cutting of sections at once, little is to be gained by the prolongation of the time during which the object is in a fit condition for the purpose. Having once got everything working, as many sections can be cut in a few minutes as can be desired, and, once cut, they can be kept in suitable solutions for any time. An immense saving of trouble is effected by the avoidance of the fine division of the ice which Mr. Tait advocates. A coarse pounding suffices for use with my process, as a large vessel can be used to contain it. As to fixing the instrument to the table or keeping it free, of course this is a detail which each worker can have arranged to suit himself. I may mention that I am having an instrument constructed almost entirely of vulcanite, which I hope will give great lightness, and do away with the necessity of cork or other coverings to keep out heat. I am, Sir, yours &c.,

Glasgow, July, 1875. WM. JAS. FLEMING.

F. W. N. (Reading) should consult Dr. Schultze's recently published pamphlet (Heidelberg: Winter) on the Results of the Cold-water Treatment in Abdominal Typhus. The exposition is clear and impartial. Out of 648 cases in the Heidelberg Infirmary between the years 1864—73, Dr. Schultze found that in nearly all the treatment was favourable in its effect on the nervous system; that it was contra-indicated in those where neuralgia or hyperæsthesia existed; that it did good in lung complications; but that in intestinal hæmorrhages it was mischievous.

Mr. Schindler, (Kennington.)—The MS. shall have our early attention. We should be glad, however, to have an opportunity of inspecting the work in question.

AMERICAN DEGREES.

To the Editor of THE LANCET.

SIR,—In your journal of June 5th, page 811, I notice what may be the very just censure of a medical (?) man claiming to possess an American qualification. But will you kindly inform me what is meant by the "wretched character of that (degree) of Pennsylvania"?

There are in Philadelphia two medical schools, known respectively as the "Jefferson" and the "University of Pennsylvania," offering advantages for acquiring a first-class medical education, nearly equal to any school in the world, the honourable professors of which, I beg leave to say, are highly respected in England as well as in America.

Some time since an unprincipled charlatan advertised to sell diplomas of the "University of Philadelphia," and some unfortunate Englishmen and others were induced to buy them. No regular physician or surgeon has ever been connected with this so-called "University of Philadelphia," which you must have confounded with the regular "University of Pennsylvania," *located* at Philadelphia, thereby creating a prejudice against institutions worthily enjoying great honour and confidence.

It is but justice to the medical profession of the United States to assure you that it is quite impossible to purchase or otherwise fraudulently obtain the degree of M.D. from any regular medical school in the State of Pennsylvania, or any other State of the American Union. The English medical profession is certainly too much indebted to American medical enterprise in pharmacy, medicine, and surgery to condemn in such a sweeping term the very centre of American medical education.

I am, Sir, yours &c.,

Ventnor, I.W., June 19th, 1875. NOT AN AMERICAN GRADUATE.

*** We do not confound the University of Philadelphia with that of Pennsylvania, though perhaps our expression was open to misunderstanding. Our correspondent does not overstate the respectability of the true University of Pennsylvania, though he passes too lightly over the case and the crimes of the "University of Philadelphia," whatever that may mean, and over the evil of innumerable degree- and diploma-granting bodies in the States.—ED. L.

THE PROFESSORSHIP AT THE COLLEGE OF SURGEONS.

A PRINTER'S error occurred in our article last week on the recent changes in the College of Surgeons. It is made to appear that Mr. Flower will be associated in the ensuing year with Mr. Turner, of Edinburgh. It should be with Mr. Parker (in the Chair of Comparative Anatomy and Physiology).

Mr. T. W. Watkins (Leipzig) is thanked. We are afraid we cannot avail ourselves of the offer.

PROFESSIONAL REMUNERATION.

At a time when there is a strong feeling among the consulting members of the profession that the fee of a guinea (representing so much less now than formerly) should be increased, it is interesting to learn that veterinary surgeons are raising their scale of charges. We believe we are right in stating that several of the leading veterinary surgeons have recently increased the fee for examining a horse from half a guinea to a guinea. The initiation taken by Mr. Mayor will, doubtless, be accepted with acclamation by the whole veterinary profession, from the gentleman who examines a race-horse, whose value is reckoned by thousands of pounds, down to the village farrier, who drenches the horses, and their humble congener, the mule. Is it not full time that the position of the hard-worked and ill-paid general practitioner should be ameliorated?

Alpha.—No.

INCONTINENCE OF URINE.

To the Editor of THE LANCET.

SIR,—One of your correspondents in THE LANCET of Jan. 23rd asks for information as to the treatment of incontinence of urine, and in your issue of the 30th of the same month half a dozen responses are made. A little more careful perusal of the admirably conducted department of THE LANCET devoted to "Notes, Short Comments, and Answers to Correspondents," would have caused some consideration of the note on "Ritual Circumcision" in the issue of Jan. 9th, where Dr. A. Mayer says, "It is also a known fact that circumcision cures enuresis nocturna when caused by a prepuce with a narrow opening." The fact that of the six respondents, two recommend belladonna, and the other four as many different modes of managing the difficulty, would show that the *cause* had not been looked after. My own experience, which has been extensive, has convinced me that enuresis in youth and in adult life is frequently due to a contraction either of the preputial orifice or of the meatus urinarius, and that sedatives and narcotics may palliate, but do not cure. Circumcision or division of the preputial orifice, when the prepuce alone is at fault, will give prompt and permanent relief; when this does *not* give relief, the meatus urinarius will often be found constricted, and a relief of this constriction will give the desired result. Let me cite a case or two.

G. H——, a lad of ten, had been troubled with nocturnal incontinence two or three times in the night and also often during the day for two years. Belladonna in quarter-grain doses relieved him temporarily, but on cessation of the drug would return. He was found to have redundant prepuce with contracted orifice. I circumcised him in October, 1874, found some adherence of prepuce to glans, and also a very small meatus urinarius. This I enlarged to 22 Fr. From date of operation he was completely relieved for four weeks, when the difficulty reappeared. I then made another examination, and found the meatus recontracted to 16 Fr. I then redivided it to 24 Fr. Since then he has had not the slightest trouble, and, furthermore, has been in better health than for several years.

I have just received a letter from Dr. C. H. Mastin, of Mobile, La., which I desire to add to this statement, and let your correspondents judge of its value. Dr. M. is one of the leading surgeons of the South-West: "Following I furnish you the brief notes of a case which I fancy will interest you, as it bears so strongly on your theory of reflex irritation, which I, for one, believe is ere long destined to become a fixed surgical truth. On the 29th of last month (November, 1874) I was requested to see a little boy, eighteen months old, the son of a gentleman of this city. The child was very delicate, pale, fretful, no appetite, languid, complained of pain whenever he passed his water. He was wakeful at night, and in the nightly habit of wetting his bed during sleep. From the description given me I was led to believe that the child had stone. Upon examination, however, I failed to discover stone, but found that the child had an elongated prepuce, the orifice of which was very small, congenitally contracted, so small, indeed, that there was difficulty in passing an ordinary silver probe. I was satisfied that the case was one of reflex irritation from narrowing of the preputial orifice. The physician with whom I saw the case in consultation laughed at this diagnosis; but, inasmuch as there was an evident obstruction to urination, consented to a free division of the preputial orifice. The results of this simple operation proved the correctness of your views and of my diagnosis established thereon. The very next day my little patient was decidedly improved, ate well, slept quietly, had no incontinence of urine, and up to to-day (one month from the date of operation) he has remained perfectly well in this respect, and his father says he has gained eight to ten pounds of flesh, and is in better health than ever before."

I remain, Sir, yours faithfully,
New York, June 9th, 1875. F. N. OTIS, M.D.

A Constant Reader has forgotten to authenticate his communication with his card. If he will do so we shall be happy to refer to the matter. Any further information obtainable about the outbreak should be forwarded without delay.

Dr. R. H. Pierson, (Dresden.)—We have not as yet noticed the meeting, but shall be glad to receive a very short report of the proceedings this year, if of interest to British practitioners. The other matter has not been forgotten.

DOUBLE DISLOCATION OF THE SHOULDER.

To the Editor of THE LANCET.

SIR,—A rather unusual case was admitted into the Birkenhead Borough Hospital some weeks since, under the care of Dr. Spratly. I was called into the surgery to see a patient, and found on examination that he had sustained dislocation of both shoulders into the axillæ. It appeared that the man, who is a carpenter, while working upon some scaffolding, lost his footing and fell, striking the ground with both elbows at the same time, and thus causing the injury. I easily reduced the dislocation by means of my heel in the axillæ, and the patient has since left the hospital cured.

I am, Sir, your obedient servant,
D. CHARLES DAVIDSON,
Senior House-Surgeon, Birkenhead Borough Hospital.
Birkenhead, July 3rd, 1875.

CHEMISTS BEWARE!

A CHEMIST, Mr. Adam Lawton, of Price's-end, Dudley, has just been fined £20 for practising and acting as an apothecary. It would be difficult to find a chemist nowadays who does not do so. If the Apothecaries' Society were frequently to take such action as that pursued so successfully against Mr. Lawton, they would help chemists to keep themselves within reasonable bounds, and to leave the practice of medicine and surgery to those duly qualified for it.

Mr. S. Jacobs, (Birmingham.)—We would advise our correspondent to speak to a medical man in his own neighbourhood.

THE APOTHECARIES' SOCIETY.

To the Editor of THE LANCET.

SIR,—As regards the annual dinner, termed "herbarising," given to the members of the Apothecaries' Society once a year, and paid for principally, if not entirely, as I understand, by the proprietors of the first-class stock, the real grievance of the business lies, I apprehend, in the fact that of late years the dividends on this stock have considerably decreased from their former proportion, and consequently, while the expenses of the entertainment remain the same, or may even have augmented in these dear times, these latter, therefore, are certain to fall heavily on the purses of some of the gentlemen who have for the time being to "pay the piper," and who probably, having looked to this investment as an additional source of income, find possibly their whole dividend for the current year swamped. On former occasions this was not so, and a handsome balance would still be left. I would ask the question of some member better informed than myself, whether there does not exist a bye-law to the effect that the expense of the herbarising dinner shall not exceed 2s. 6d. per head? Now, should the members (on whose unhappy shoulders it falls to provide these annual dinners) elect to abide by this arrangement, I imagine the number of guests would not be overwhelming, and, as Paddy said, "the coort was cleared." The law, if this be so, would be carried out in its integrity, and an onerous tax removed from that section of the proprietary who, it is well known, can ill-afford the outlay involved in these annual banquets.

I remain, Sir, yours &c.,
London, July 10th, 1875. ANOTHER MEMBER OF THE SECOND CLASS.

To the Editor of THE LANCET.

SIR,—I have made up my mind to follow the example of Mr. Bury (see last week's LANCET)—viz., in the interest of the stewards of the "general herbarising dinner," to decline the invitation sent me by the Master and Wardens. If those who wish to put an end to these unnecessary feasts will do the same, or if they have accepted they will withdraw their names, they will give a valuable practical hint to the Master and Wardens, and save the pockets of the stewards. I am, Sir, yours faithfully,
July, 1875. M. S. A.

Registered Practitioner.—1. Immediately after the erasure of a name or names from the Medical Register for infamous conduct in a professional respect, the Registrar of the Medical Council sends notice thereof to the nineteen licensing bodies, to which notice is added a copy of the following resolution:—"That the Council recommend that any person whose name has been once removed from the Register shall not be admitted to examination for any new qualification without the consent of the General Medical Council."—2. The General Medical Council only, sitting in conclave, can undertake so important and serious a matter as the removal of a name from the Medical Register, which precludes the practitioner from afterwards legally following his profession.

POOR-LAW RELIEF.

To the Editor of THE LANCET.

SIR,—I shall feel obliged by advice from some of your readers on the following matter, perhaps trivial, but, to my mind, important.

W. is parish doctor in this district. I am a duly registered practitioner in the same parish. R. is a patient in my club, totally disabled, and with no means of support, he not being entitled to sick pay from the said club. At his request I furnish him with a certificate, stating that he is incapable of doing any work. On his presenting it to the relieving officer, he is told that my certificate is of no legal effect, and that unless he engages the services of W. for the future, he may "lie there and clog and die" before he shall receive parish relief.

My object, Sir, in writing is to ascertain whether or no the relieving officer can ignore my certificate, and compel the man R. to be attended by W., and give up his own medical man, before granting him assistance.

I am, Sir, yours &c.,
July, 1875. JUSTICE.

Microscopist.—A good Hartnack with immersion lenses costs, we believe, some £12. An old Ross's quarter may sometimes be purchased second-hand for £1 or £2 (a new one costs £7 10s.), and with a high eye-piece will be nearly all that an ordinary practitioner requires, unless he is pursuing some special investigation, in which case we recommend the Hartnack. There would be no difficulty in making the adaptation our correspondent suggests.

THE VALUE OF BROMIDE OF POTASSIUM IN PUERPERAL CONVULSIONS.

To the Editor of THE LANCET.

SIR,—For some years past I have found the bromide of potassium so valuable in the treatment of puerperal convulsions that I feel justified in bringing it under the notice of your readers. It appears as useful when the fits have come on before labour as after, and I consider it of equal value whether albumen is present in the urine or not. I give fifteen grains in mint water every two hours, and I have observed an improvement after the third dose.

Yours faithfully,
Hurstpierpoint, July, 1875. M. MONCKTON.

Zacius, (York.)—Two distinguished Saxon physicians, one of whom holds high office in the University of Leipzig, have jointly produced a text-book for midwives which strikes us as well deserving translation. Its title is "Lehrbuch der Hebammenkunst"; its authors are Drs. Credé and Winckel; its publisher is Hirzel, of Leipzig; and its price is 4s. 6d. Sound judgment is shown, not only in stating clearly and succinctly what midwives ought to know, but also in withholding knowledge which can only tempt them to go beyond their sphere.

Major-General Shaw, (Portsoy, Banffshire.)—Our correspondent's communication is acknowledged with thanks.

MILITIA SURGEONS.

To the Editor of THE LANCET.

SIR,—As there were no signs of the publication of the new Militia Medical Regulations, the following question was put to Mr. Hardy by Dr. Lyon Playfair last night:—"Whether, if he was unable to fix a date for their issue, he would state if it was intended under them to retain the services of the militia surgeons with the same pay and allowances as at present, or to dispense with them altogether?" The answer is given in *The Times* of to-day, as follows:—"The Regulations relating to yeomanry and volunteers are actually settled; but difficulties have arisen with regard to the militia medical officers, through their being brought into contact with the brigade depôts. He hoped the regulations would be published at no distant date." By this it will be seen that the real pith of the question is not answered. Can they, or can they not, retain our services? If they can, it must not be with *less* pay and allowances, because we shall be liable to the same contingencies as at present—viz., forced absence from home at camp or training centre, and interference with private interests. If they cannot, they must be prepared to meet demands for compensation, and to find qualified men to take charge of the one hundred and thirty regiments during the annual training at camp or training centre; for no present militia surgeon will retain his commission for this one month's pay alone. There is no doubt it is a hard nut to crack for the War Office, and hence the delay in issuing these new Regulations. Your obedient servant,

July 14th, 1875. MILITIA SURGEON.

COMMUNICATIONS not noticed in the current number will receive attention in our issue of the ensuing week.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. G. Johnson, London; Mr. Berkeley Hill, London; Dr. Spencer, India; Mr. Morgan, London; Major-General Shaw; Dr. Henderson, London; Dr. B. Foster, Birmingham; Surgeon-Major Ringer, Oudh; Mr. Harrington, London; Mr. Maunder, London; Mr. Bullen, Kennington; Mr. Baker, London; Mr. Braden, Lewes; Dr. Lawson, London; Dr. Carter, Birmingham; Mr. Kershaw, London; Mr. Chapman, London; Dr. Duncan, London; Dr. Parkes, Chatham; Mr. Anderson, Newtown; Mr. Pettinger, Manchester; Mr. Arthur, Diss; Dr. Cane, Peterborough; Mr. Hastings, London; Dr. Rhind, Torquay; Mr. Bolton, Nenthead; Mr. Gramshaw, Walton-on-the-Naze; Dr. Reoch, Newcastle-on-Tyne; Dr. Worthington, Benson; Dr. Langley, London; Mr. Philp, Stirling; Dr. D. Duckworth, London; Messrs. Robertson and Scott, Edinburgh; Mr. Coombe, Southport; Messrs. A. and C. Black, Edinburgh; Mr. Markby, Tyfield; Mr. Lucas, Hitchin; Mr. Kerbey, London; Mrs. Harrison, Camden-road; Dr. Pierson, Dresden; Mr. Dixon, Manchester; Messrs. Calvert and Co., Manchester; Mr. Little, Woolton; Dr. Fleming, Glasgow; Mr. Schendler, Kennington; Mr. Winter, Leamington; Mr. Hole, Tiverton; Mr. Hall, London; Mr. Mason, Carlisle; Mr. Roberts, London; Mr. Bailey, London; Mr. Godfray, Jersey; Dr. Davies, Wrexham; Mr. Blount, London; Mr. Strang, Penge; Dr. Gordon, London; Mr. R. Richardson, Oundle; Mr. Marsden, Huddersfield; Mr. Colegate, Dunoon; Mr. Kemp, London; Mr. Haviland, Bridgwater; Mr. Harris, Bournemouth; Mr. Greene, London; Dr. Hardwicke, Rotherham; Mr. Fife, Norwich; Mr. Horton, Coleford; Mr. Collins, Huntingdon; Mr. Wharton, Sunderland; Mr. Ellis, Sutton; Mr. Denne, Wolverhampton; Medicus, Sherborne; W. A. B., Barrow; W. M. B.; M.D.; Z.; M. S. A.; A Constant Reader; Progressus; Dido; A Porpoise; Militia Surgeon; H. C. L.; M.R.C.S.; W. S. Y., London; Justice; A. M. D.; G. R. R.; Alpha, Bristol; The Wanderer; X.; C. H. L.; &c. &.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Woodcock, Bradford; Mr. Carruthers, Kirkpatrick-Fleming; Mr. Potts, Walsall; Mr. Palmer, Warwick; Mr. Wilmshurst Woodville; Dr. Macfarlane, Walmer; Mr. Forward, Axminster; Dr. Blytham, Swinton; Mr. Parsons, Portland; Messrs. Oliver and Boyd, Edinburgh; Mr. Haydon, London; Mr. Brodribb, Caterham; Mr. Sykes, Wakefield; Mr. Aspinall, Darwen; Mr. Jones, Bishop Auckland; Mr. Hardman, Blackpool; Mr. Watts, Kingstown; Mr. Moore, Brackley; Mr. Moreton, London; Mr. Lascelles London; Mr. Richardson, Edinburgh; Mr. Birt, London; Dr. Taplin, Birmingham; Mr. Legge, Aberdeen; Mr. Jackson, London; Mr. Davies, St. Asaph; Mr. Seymour, Coventry; Messrs. Jolly, Norwich; Mr. Hines, Sunderland; Mr. Deane, Heckmondwike; Mr. S. Jacobs, Birmingham; Mr. Holmes, Maidstone; Mr. Fox, London; Mr. G. C. Algernon, Wigan; Dr. Dickson, Buxton; Mr. Lucas; Dr. Dick, London; Mr. Pugh, Brighouse; Dr. Mason, Sheffield; M. R.; M.R.C.S., London; W. M. E., Cerne-Abbas; C. O., Edinburgh; Delta, Tunbridge; A. B., Brackley; Zeta; B. A., Bicester; L. M., London; F. R. S.; W. K., London; F. W., Sutton; B. A. J.; Z., Liskeard; G. R., Kirkdale; Dispenser, Dover.

Leeds Mercury, Bradford Observer, Newcastle Daily Chronicle, Cork Constitution, Western Morning News, Surrey Advertiser, Huddersfield Chronicle, Manchester Guardian, Welshman, Local Government Chronicle, Methodist Recorder, Isle of Man Times, Macclesfield Courier, Derbyshire Times, Scotsman, and *Chester Courant* have been received.

METEOROLOGICAL READINGS

(Taken by Steward's Instruments).

THE LANCET OFFICE, JULY 15TH, 1875.

Date	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb.	Dry Bulb	Solar Radia in Vacuo	Max. Temp. Shade	Min. Temp.	Rainfall.	Remarks at 8 A.M.
July 9	29·72	W.	57	59	75	62	53	...	Overcast
" 10	29·60	N.NW	54	59	109	68	53	0·22	Cloudy
" 11	29·52	N.W.	53	60	99	63	49	0·09	Cloudy
" 12	29·98	N.W.	51	57	101	66	51	0·13	Cloudy
" 13	30·23	N.W.	51	55	103	70	48	...	Cloudy
" 14	30·02	S.	53	59	82	65	52	...	Overcast
" 15	29·65	S.E.	56	57	...	...	55	0·91	Raining

Medical Diary for the ensuing Week.

Monday, July 19.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ST. PETER'S HOSPITAL.—3½ P.M. Expected Operations: Lithotomy; Subcutaneous Urethrotomy.

Tuesday, July 20.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.

Wednesday, July 21.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1½ P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 3½ P.M.

Thursday, July 22.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

Friday, July 23.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
QUEKETT MICROSCOPICAL CLUB.—8 P.M.—Annual General Meeting.

Saturday, July 24.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NOTICE.

In consequence of THE LANCET being frequently detained by the Post Office when posted for places abroad *more than eight days after* publication, subscribers and others are reminded that such copies can be forwarded only as book packets, and *prepaid* as such.

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Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday; those from the country must be accompanied by a remittance.

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